# South African Medical Journal
# Suid-Afrikaanse Tydskrif vir Geneeskunde
**P.O. Box 643, Cape Town Posbus 643, Kaapstad**

Cape Town, 26 May 1956 — Weekly 2s. 6d.
Vol. 30 No. 21
Kaapstad, 26 Mei 1956 — Weekliks 2s. 6d.


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# SEBORRHOEA CAPITIS INFANTUM

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In this short paper I propose to discuss the etiology of a common seborrhoeic skin disorder as it occurs in infants, the so-called 'cradle cap' or 'milk crust' of popular usage, and to advance a satisfactory method of treatment.

Dermatologists have divided seborrhoea of the skin broadly into the oily and the dry forms and, as is so often the case, have confused the nomenclature by attaching different names to the one condition; so that we have the oily form of seborrhoea called *hyperidrosis oleosa* by Brocq, *seborrhoea simplex* by Unna, and *stearrhoea simplex* by Wilson, to give only three. The dry form of seborrhoea is pityroid and dry and scaly, or dry and crusting. The condition as it occurs in infants is also seen in adults but I shall limit my description and discussion of it to the infant age-group and shall use the term *seborrhoea capitis infantum* to include both the oily and dry forms.

The oily form is characterized by a waxy-hard crusting of the sebum exuded upon the scalp and near parts. This crusting or inspissation of the excess of sebum mats down any hair that may be present. The colour of this crust or cap tends to vary according to the complexion of the infant but often it has a plainly dirty appearance and, when the parents are careful people, this apparent lack of cleanliness on their part can be most distressing. It is chiefly this that provokes them to ask for medical advice, The more usual methods of treatment for removal of the crust, such as the application of shampoos and unguents, bring only transient benefit, for the crusting reappears as often as it is removed by these means, and may continue to do so for many months. The dry, scaly, pityroid form is not so bothersome but it can be severe enough to demand attention.

It has been said that the waxy or oily form is physiologically represented by the vernix caseosa of the newly-born infant but this is true only in part—sebum is only one of several ingredients which constitute vernix caseosa. Published opinion has gone so far as to state that the 'milk crust' of the later months of infancy is a persistence of dried vernix caseosa on the scalp. This would be surprising, because it is in the nature of vernix caseosa to disappear from the baby's body if it is left untouched and, secondly, actual deliberate removal of the vernix and thorough cleansing of the skin does not inhibit the development of the seborrhoeic manifestations.

The foregoing accords with the fact, which perhaps rarely receives its due regard from physicians, especially pediatricians, that the seborrhoeic diathesis is a constitutional factor in the infant which cannot be removed. This factor strongly predisposes to the development in later life of premature alopecia if the diathesis is left uncontrolled.

## THE ETIOLOGY

Seborrhoea capitis infantum is not in itself an inflammatory skin lesion. It is liable to inflammatory complication from secondary invasion by skin organisms, but primarily it is a metabolic dysfunction of the sebaceous glands, a few of which develop from the epidermis independently of hair follicles.[1] It is the scalp that is first affected by the seborrhoea, which if it become secondarily infected may spread to other parts as a dermatitis. This is brought about by invading skin-organisms which decompose the matted waxy crust, when the products of the decomposition irritate and inflame the skin.

In the literature there is very little interest shown in seborrhoea capitis infantum; some pediatric tomes give it the briefest mention and then only as incidental to a discussion of the related dermatitis.

The study of vitamins has brought a number of facts to light which have a close relationship to clinical medicine. Vitamin B2 (riboflavin) is of special interest in connection with seborrhoea capitis infantum. It is

a growth-promoting vitamin in young animals (mammals) and in them its lack leads to the production of an excess of sebum about the nose, ears and eyes. This excess of sebum can be corrected with food containing sufficient riboflavin.[2] In young swine a lack of riboflavin results in an exudate of excessive sebum over the back and sides and around the ears and eyes. Riboflavin appears to be needed by all animals and some microorganisms; and lack of it at first retards and later completely prevents growth. Little, if any, storage of riboflavin takes place in the body and it is biologically necessary to renew the intake daily. It is readily excreted in the urine and faeces, and although there is evidence that riboflavin is synthesized in the gut by bacteria it probably leaves the gut with the bacteria. Riboflavin is normally present in the skin of man in minute quantity. Cow's milk contains, on an average, 1·7 micrograms per quart; exposure of milk in bottles to the sun will destroy most of its riboflavin content. A riboflavin supplement for growing pigs is very necessary and they require 3·8 mg. per 100 pounds of live weight.

The suggested requirement of riboflavin for a child of 1 year has been assessed at 0·6 mg. daily.[3] Since a mother taking a daily supplement of 3 mg. of riboflavin secretes only 9% of this supplement in her breast-milk it follows that daily addition of the vitamin to the infant's diet is generally necessary for the breast-fed infant. It was a consideration of the facts concerning riboflavin which I have indicated here that led me to the conclusion that a riboflavin deficiency is not unlikely in early infancy and that such a deficiency might explain the appearance of seborrhoea capitis infantum.

### THE TREATMENT

On the basis that 0·6 mg. of riboflavin is regarded as the minimal daily requirement for an infant 1 year old (I have not found any mention of the minimal daily requirement for a younger age), I have, from 1950 onwards, prescribed a supplementary daily dosage of 1 mg. of riboflavin for each infant brought to me for the complaint of seborrhoea of the scalp. One difficulty was that 1-mg. tablets of riboflavin were not obtainable. This difficulty persists. However, pharmacists were persuaded to divide 5-mg. tablets into 1-mg. powders and this was found to be a suitable form in which to administer the vitamin in the baby's milk formula if it were being bottle-fed. Unfortunately, the pulverizing of the tablets and their dispensing as powders adds to the cost. When the pharmacist was unwilling to pulverize and divide the tablets the only objection to giving the whole tablet was the cost.

Very satisfactory results have invariably been obtained after a minimum course of 14 days by this simple method of treatment. When riboflavin was available no other measures were taken or advised to cure the seborrhoea, but the mother often of her own accord removed the scurf or crust by shampoos or otherwise for the sake of an immediate improvement in the appearance of the scalp. Sometimes, after a satisfactory clearing of the seborrhoea from the scalp by supplementary riboflavin, a recurrence, though of slighter degree, has followed the cessation of treatment. A renewal of riboflavin administration only has again cleared the skin and in these cases the mother has been advised to give the extra riboflavin at the first hint of a recurrence. This observation also supports the etiological significance of riboflavin in seborrhoea.

In a few cases which have become secondarily infected, thus deserving the name seborrhoeic dermatitis, local applications of antibacterial agents have been combined with the oral intake of riboflavin to bring about quick healing; when the inflammation has subsided, continuation of the riboflavin supplement has been advised until no trace of seborrhoea remained.


### SUMMARY

Facts are submitted indicating the etiological significance of a deficiency of riboflavin (vitamin B2) in the development and continuance of seborrhoea of the skin of the scalp in infants, for which I regard the term *seborrhoea capitis infantum* as appropriate. The condition is in itself bothersome to the parents chiefly because of its unclean appearance, but it often becomes more serious when secondary infection produces an inflammatory dermatitis, which may spread quickly and involve areas of the skin remote from the scalp. The usual ways of treating the seborrhoea are essentially palliative and therefore unsatisfactory. Treatment by supplementary riboflavin given to the infant in small dosage by mouth has given very favourable results.


### REFERENCES


1. Hamilton, W. J. (1947): *Human Embryology*, p. 322. Baltimore: The Williams & Wilkins Company.
2. Eddy, W. H. (1949): *Vitaminology*. Baltimore: The Williams & Wilkins Company.
3. Food and Nutrition Board (1948): National Research Council Report (USA).


## UNION DEPARTMENT OF HEALTH BULLETIN

*Union Department of Health Bulletin.* Report for the 6 days ended 9 May 1956.

*Plague, Smallpox.* Nil.

*Typhus Fever. Cape Province.* One (1) non-European case in the Cradock district. Diagnosis confirmed by laboratory tests.

*Epidemic Diseases in other Countries.*

*Plague.* Nil.

*Cholera in* Calcutta (India); Chalna, Chittagong, Dacca (Pakistan).

*Smallpox in* Kabul (Afghanistan); Rangoon (Burma); Ahmedabad, Allahabad, Bombay, Calcutta, Delhi, Kanpur, Madras, Pondicherry, Visakhapatnam (India); Dacca, Karachi (Pakistan); Huć, Tourane (Viêt-Nam); Mombasa, Nairobi (Kenya); Tanga (Tanganyika).

*Typhus Fever in* Baghdad (Iraq).

South African Medical Journal

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## VAN DIE REDAKSIE

### WAT ENDOKRINOLOGIE NIE IS NIE

#### DIE NIEMANDSLAND VAN GENEESKUNDE

Albright[1] het in sy welbekende inleiding tot die afdeling oor Endokrinologie in Cecil se handboek oor geneeskunde, oor hierdie tema geskryf. Endokrinologie het pas onlangs in 'n agtenswaardige tak van geneeskunde ontwikkel—vry van die towery en kwaksalwery van orgaanterapie, verjonging, en dies meer. Nog steeds word die twee mees algemene groepe siektes van die buislose kliere, suiker-siekte en skildklierwerkingstoornisse, van endokrinologie geskei en word hul in spesiale klinieke, anders as endokrinologies, gesien. Aan die anderkant vind enige toestand wat nie vanselfsprekend by 'n besonder stelsel inpas nie en wat se etiologie onduidelik is, enige rommel van die geneeskunde, wat nie die hart van 'n besondere spesialis verlustig nie, sy pad na die endokrinoloog. Hoofstukke oor gans onverwante onderwerpe word selfs in handboeke oor endokrinologie gevind; bv.,*Obesity*' en ,*Congenital anomalies sometimes mistaken for endocrinopathies*' in Wilkins se boek oor kinderendokrinologie[2] en hoofstukke oor *polyostotic fibrous dysplasia* en *Paget's disease* in Albright se boek oor die byskildkliere.[3]

Vetsug staan bo aan die lys van indringers op die gebied van die kliere. Oortollige vet is nooit aan stoornisse in die werking van buislose kliere te wyte nie met die enkel uitsondering van Cushing se sindroom wanneer proteïenweefsel werklik in vet omskep word. In elk geval is vetheid nie die uitstaande kenmerk van hierdie toestand nie. Dit kan met nadruk beklemtoon word dat oortollige vet nooit aan gebrekkige skildklierwerking of aan enige ongesteldheid van die harsingslymklier te wyte is nie.

Vet is aan kos en aan niks anders te danke nie. Dit is nie nodig om 'n vraat te wees (alhoewel dit dikwels die geval is) om vet te wees nie—daar moet net meer geëet word as wat nodig is. As 2,500 kalorieë per dag nodig is en gemiddeld 2,590 kalorieë per dag gebruik word is die resultaat 10 gram vet. Hierdie oortollige kos kan nie spoorloos verdwyn nie (aangesien die mens aan die wette van stofbewaring onderworpe is) en die liggaam beskik nie oor enige meganisme wat dit kan verwerp nie. Hierdie ekstra 90 kalorieë beteken 1 kilogram, of meer as 2 pond, oortollige vleis per 100 dae, 7 pond per jaar, 50 ekstra pond elke sewe jaar. (Weliswaar is hierdie rekenkunde ietwat te vereenvoudig, maar die beginsel is akkuraat). Wat hierdeur te kenne gegee word is dat vetsug nie aan klierwerking te wyte is nie.

## EDITORIAL

### WHAT ENDOCRINOLOGY IS NOT

#### THE NO-MAN'S LAND OF MEDICINE

Albright,[1] in his well-known introduction to the section of Endocrinology in Cecil's Textbook of Medicine, has written on this theme. It is only within recent years that endocrinology has become a respectable branch of medicine, freed from the witchcraft and mumbo-jumbo of organotherapy, rejuvenation and the like. Even now the two commonest groups of diseases of the ductless glands, diabetes and dysthyroidism, are usually divorced from endocrinology and seen in special clinics other than the endocrine clinic. On the other hand any condition not obviously affecting a particular system, whose aetiology is poorly understood, any rag-tag or bobtail in medicine which brings delight to the heart of no particular specialist, finds its way to the endocrinologist. Even text-books of Endocrinology include chapters on totally non-endocrinal subjects; for example, 'Obesity' and 'Congenital anomalies sometimes mistaken for endocrinopathies', in Wilkins' book on paediatric endocrinology,[2] and Albright's book on the parathyroids,[3] which contain chapters on polyostotic fibrous dysplasia and on Paget's disease.

The commonest invader of the glandular province is obesity. The deposition of excess fat is never caused by endocrine dysfunction, with the one and only exception of Cushing's syndrome, in which proteinous tissue is actually transformed into fat. Obesity in this condition is in any case not the outstanding feature. It may be particularly stressed that obesity is not produced by subthyroidism nor by any known pituitary disorder. Fat comes from food and from nothing else. One does not have to be gluttonous to get fat (though one often is) but one does have to eat more than is necessary. Let us consider it: if one's requirement is 2,500 calories per day, and one averages 2,590 calories, this is the equivalent of 10 grams of extra fat. This superfluous food cannot disappear (since man is subject to the laws of conservation of matter), nor does the body possess a mechanism for 'burning it away'. This extra 90 calories, then, mounts up to 1 kilogram, or over 2 pounds, of surplus flesh within 100 days,

Af en toe kan vetsug toegeskryf word aan 'n oormatige aptyt, wat patologies is eerder as sielkundig of as gevolg van omgewingsfaktore. So 'n aptyt kan die gevolg wees van oormatige insulien van 'n alvlieseilandjiegewas, van behandeling met bynierskors-steroïede (en in Cushing se sindroom) en van siekte (bv. gewas, harsingontsteking) wat regstreeks die aptytsentrum van die hipotalamus affekteer. Laasgenoemde is interessant maar is besonder seldsaam en dit mag met uitermatige slaperigheid en poliurie gepaard gaan. Hipogonadisme mag voorkom as die siekte so ver gevorder het dat dit ook die voorhipofeseklier aangetas het. Dit, dan is Fröhlich se sindroom, dit is buitengewoon seldsaam: kom feitlik nooit voor nie. Hier gaan die vetsug gepaard met 'n endokrienongesteldheid, maar word nie daardeur veroorsaak nie. Vet seuns is nie voorbeelde van Fröhlich se sindroom nie, hulle ly nie aan gebrekkige geslagskliere nie (die roede is grotendeels deur vet omsingel maar is in werklikheid redelik groot) en daar is geen bevredigende bewyse dat puberteit vertraag is nie. Hulle is vet. Hulle eet te veel.

Een ander endokrienstoornis wat dikwels met vetsug geassosieer word, alhoewel die verband nie duidelik is nie, is *hyperthecosis ovarii* (Stein-Leventhal sindroom). Muller[1] beskou dit as die mees algemene oorsaak van sekondêre amenorrhoea. Seer seker verloor hierdie pasiënte nie outomaties gewig nie wanneer die menstruasiestoornisse deur 'n wigreseksie van die eierstokke uitgeskakel word nie, hul moet net so getrou hul dieet volg soos enige ander vet persoon.

Net so is die teenoorgestelde toestand, die sielkundige verlies van aptyt, *anorexia nervosa*, nie werklik endokrien nie alhoewel dit, in 'n ernstige geval, sekondêre hipohipofese tekens, mag toon. Gewigsverlies is 'n endokriensimptoom by skildkliervergiftiging en by geen ander siektetoestand nie.

Die volgende nie-endokrien-toestand is die van gewone harigheid. Harige vroumense is ongelukkig algemeen en tensy hul harigheid slegs deel van 'n kompleks is, soos by die adrenogenital sindroom, is daar niks wat die endokrinoloog op sy spesiale gebied kan doen om te help nie. Die teenoorgestelde toestand, gedeeltelike of totale *alopecia*, staan in geen verband met die buislose kliere nie—die algemene ylwording van hare by gebrekkige skildklierwerking of die uitval van hare by die slape met manlikheidswording is iets heeltemal anders.

Ook saamgevatte erflike beensiektes dring ongeoorloof die gebied van endokrinologie binne o.a. *osteogenesis imperfecta, polyostotic fibrous dysplasia, Marfan se sindroom*. Ander vername erflike siektes sluit in mongolisme en seldsame rariteite soos die Lawrence-Moon-Bidet-Biedl sindroom, Werner se sindroom en die abnormale ektodermiese weefselontwikkeling.

Die finale groep onder bespreking is die van die sielkundige geslagsafwykings. Homoseksualiteit is 'n geestes- nie 'n endokrienambivalensie nie. Dieselfde geld vir transvestisme. Gevalle soos bv. die van ‚Christine Jorgensen' het in die jongste tyd baie publisiteit ontvang. Dit is die moeite werd om te beklemtoon dat hierdie mense anatomies geheel en al normaal eenslagtig is (gewoonlik manlik) wat ‚voel' dat hul eintlik aan die teenoorgestelde geslag behoort. Of hierdie mense 7 pounds a year, 50 extra pounds in 7 years. (Admittedly the arithmetic is slightly over-simplified, but the principle is correct.) What we are aiming at in all this is to show that obesity is not glandular.

Occasionally obesity may be conditioned by an excessive appetite of a pathological nature (rather than one of habit or of psychological or environmental nature). Such an appetite may occur from the excessive insulin of a pancreatic-islet tumour, from treatment with adrenal cortical steroids (and in Cushing's syndrome), and from disease (e.g. tumour, encephalitis) directly affecting the appetite centre of the hypothalamus. The last-mentioned is interesting but extremely rare, and may be combined with excessive drowsiness and polyuria. Hypogonadism may occur, but only when the disease progresses to affect the anterior pituitary gland as well. This, then, is Fröhlich's syndrome: it is excessively rare—virtually non-existent. The obesity here is combined with an endocrine disorder, but is not caused by it. The fat boys we see are not examples of Fröhlich's syndrome, they are not hypogonadal (the penis is largely embedded in fat, but really of fair size), and there is no good evidence that their puberty is delayed. They are fat. They overeat.

One other endocrine disturbance is frequently associated with obesity, although the relationship is obscure. This is hyperthecosis ovarii (Stein-Leventhal syndrome), which Muller[1] claims to be the commonest cause of secondary amenorrhoea. Certainly these patients do not automatically lose weight when the menstrual disturbance is corrected by wedge resection of the ovaries, but need to diet as strictly as any other obese person.

The opposite condition, that of psychological loss of appetite, anorexia nervosa, is likewise not really endocrine although it may, when of gross degree, produce secondary hypopituitary features. Loss of weight is an endocrine symptom in thyrotoxicosis and in nothing else.

The next non-endocrine state is that of simple hirsutism. Hairy women are, unfortunately, common, and, unless their hairiness is merely part of a complex, as in the adrenogenital syndrome, there is nothing the endocrinologist can do to help from his special point of view. The opposite state, patchy or total alopecia, has no endocrine connexions at all—the general thinning of the hair in hypothyroidism or the temporal recession of the hair in masculinization are quite different.

The generalized congenital bone-disorders also spuriously invade tne endocrine domain. Osteogenesis imperfecta, polyostotic fibrous dysplasia, Marfan's syndrome, and so on, appear. Other major congental disorders include mongolism and occasional rarities such as the Laurence-Moon-Bidet-Biedl syndrome, Werner's syndrome and the ectodermal dysplasias.

The final group for discussion is that of the psychological sexual aberrations. Homosexuality is a mental ambivalence, not an endocrine one; transvestism the same. Transvestites, such as 'Christine Jorgensen', have been recently much in the news. It is worth emphasizing that these people are, anatomically, perfectly normally unisexual (usually male), who 'feel' that they really should have been born into the other sex. Whether

chirurgiese geslagsverandering behoort te ondergaan is nie 'n probleem vir die endokrinoloog nie.

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they ever merit an operative 'change of sex' is not a problem for the endocrinologist.

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# DEVIC'S DISEASE

JOAN WAGNER, M.B., M.R.C.P.

*From the Johannesburg General Hospital*

British and American journals describe a surprising number of cases of neuromyelitis optica, and though it has been argued that the disease is merely a form of disseminated sclerosis, most authors describe a picture so uniform that it must be recognized as a specific entity. Clifford Albutt, in Leeds in 1870, was the first person to describe the association of spinal-cord and optic-nerve disease, and was followed in 1880 by mention of another case by Erb. In 1894 a Frenchman, F. Gault, surveyed 17 cases and inspired by Devic wrote a thesis on the subject, on Devic's advice calling the condition *neuromyelite optique*. From then on there are sporadic reports of cases, Goulden in 1914 mentioning 51, Bell in 1927 70, and in 1949 Stansbury found reports of 200 cases in the literature. Scott in 1952 described 10 cases occurring in Edinburgh during the 14 years 1938-52, and in 1954 Markham and Otenasek found 10 cases in the files of the Johns Hopkins Hospital between 1925 and 1952.

Two cases have been seen recently in the Johannesburg General Hospital and are thought worth reporting. In addition an analysis will be given of 50 cases fully described in the literature.

## CASE 1

Mr. D., a 21-year-old European, was admitted to a medical ward on 18 August 1955 because of weakness and generalized bodyaches for 2 weeks, pain behind the eyes and headache for 48 hours, and poor vision and difficulty in micturition for 24 hours.

*History.* The illness had begun 2 weeks previously with influenza-like symptoms, which were treated by his doctor with Terramycin. Two days before admission he felt ill again, this time complaining of headache, vomiting and pain behind the eyes on moving them. There was a transitory incident 7 days before admission of weakness in the right arm. For 1 day vision had been poor in the right eye and he had found it hard to pass urine.

He had previously been quite well and worked as a machine operator for a tobacco company. There was no contributory family history.

*Examination*

He was a well-nourished adult man. Temperature 99·6°F, pulse rate 66 per minute and blood pressure 150/90 mm. Hg. Cardiovascular and respiratory systems and the abdomen revealed no abnormality.

The central nervous system showed the following:

The level of consciousness was quite normal and speech was normal.

*Cranial Nerves.* There was early papilloedema on the right side but the left disc was normal. Scotomata (central) were found on both sides, more marked on the right. The right pupil was large and reacted very sluggishly to light, and the left pupil was normal. The remaining cranial nerves were intact.

*Motor.* The motor system in the upper limbs was intact but the lower limbs showed weakness of both legs, with increased tone and bilateral ankle-clonus.

*Sensory.* The sensory system showed evidence of mild glove and stocking anaesthesia just above the elbows and knees, involving touch, pain, vibration and position senses. The abdominal reflexes were absent, all tendon reflexes (especially the knee and ankle) were much increased, and there were bilateral extensor plantar responses.

*Investigations.* The blood count was normal (haemoglobin 17·6 g.%, white cells 7,000 per c. mm. with 84% neutrophils). Cerebrospinal fluid: pressure 126 mm. of water; clear fluid and a negative Queckenstedt test; 50 cells per c. mm. (2 polymorphs and 48 lymphocytes), and sugar, chlorides, Lange curve and Wassermann reaction normal. The blood Wassermann was negative. Virus studies on stool and blood were negative. The electro-encephalogram showed a focus of irregular slow activity in the inferior surface of the mid- to posterior temporal areas. X-rays of chest, skull and sinuses were normal.

*Course and Outcome*

He was put on Meticorten, 60 mg. daily, and Vitamin B12, 1,000 micrograms daily.

*On* 22 *August* both discs showed papilloedema and on both sides the pupils reacted to light very sluggishly.

*On* 28 *August* there was marked improvement. Papilloedema had almost disappeared on both sides, reflexes were much less brisk, and the plantar responses were flexor. The dosage of cortisone was decreased.

*By* 5 *September* almost all signs had subsided, and vision was reasonably good. The cortisone was stopped.

*On* 9 *September* there appeared to be a relapse of the optic neuritis without further signs of myelitis. Both pupils were widely dilated and the discs were paler than normal. Meticorten was started again at the original dosage. From this time on recovery was very slow and for 3 weeks vision in both eyes was less than 6/60.

*On* 30 *September* the pupils were less dilated and reacted reasonably well. Vision in the right eye was 6/60 and in the left 6/36.

Both discs were paler than normal. He was discharged but advised to continue Meticorten, the dosage being reduced to 30 mg. daily.

Subsequently he has been seen several times as an out-patient and by mid-October was well enough to return to his original work. In November when last seen both discs were pale, but vision good enough for him to remain at work. On one occasion when he had been without cortisone for 4 days he complained of pain on moving the eyes. Physical signs were unchanged.

### CASE 2

A European child aged 8 years was admitted to the Transvaal Memorial Hospital for Children on 13 April 1950.

*History.* His illness began 3 weeks before admission, when he became feverish, had a severe headache, and vomited. On about the 7th day of the illness he became drowsy and complained of pain in the muscles of the back and in the hamstrings. Convulsions had occurred at the age of 18 months and again when 4 years old, but otherwise he had always been well. Family history was non-contributory.

*Examination*

He was a well-nourished child with temperature 99°F, pulse rate 80 per minute, and blood pressure 120/70 mm. Hg. The cardiovascular and respiratory systems and the abdomen showed no abnormality.

The central nervous system showed the following features:

There was no neck stiffness but Kernig's sign was positive. The fundi showed early papilloedema on both sides. The gait was slightly unsteady.

*Cranial Nerves.* Both pupils reacted poorly to light and vision was extremely poor. An actual field-defect could not be made out.

*Sensory.* Sensation showed no gross abnormality but coordination was weak in the lower limbs.

*Motor.* The reflexes were exaggerated in the upper and lower limbs, abdominal reflexes were absent, and both plantar responses were extensor.

*Investigations.* The blood count was normal (haemoglobin 15·1 g. %, white cells 9,000 per c.mm., of which 75% were polymorphs). Cerebrospinal fluid: pressure 200 mm. of water; fluid clear and Queckenstedt test negative; 26 lymphocytes per c.mm.; total protein more than 100 mg.%, and chlorides and sugar normal.

X-ray of the skull was normal. The Wassermann blood-reaction was negative, as were virus studies on stools, blood and cerebrospinal fluid.

*Course and Outcome*

He was given Aureomycin and vitamin tablets. For about 3 weeks his condition deteriorated and though he was not cooperative enough for proper tests his vision was noted to be very poor. By 20 April he could not see a bright light and he was incontinent of urine and faeces. On 25 April the only change noted was that both discs were more blurred.

*On 25 May* all signs of spinal-cord involvement had subsided. Vision was reasonably good but both discs paler than normal; swelling had subsided.

*On 17 June* 1950 he was discharged, and apart from pale discs appeared to have recovered completely. At this time, testing showed bilateral very dense central scotomata, and vision in both eyes was 3/60.

In June 1951 he was well except for pale discs. Vision in the right eye was 6/60 and in the left 6/36.

In November 1955 he was seen again; apart from his eyes he is a normal schoolboy. Both optic discs are slightly white in colour. The peripheral fields are almost normal and full, but the central fields when tested with a 20/2,000 red object still revealed marked loss. Visual acuity is 6/24 on both sides.

### CASES FROM THE LITERATURE

The following is a statistical summary of 50 cases of Devic's disease from the literature:

| *Ages* | *Male* | *Female* | *Total* |
|---|---|---|---|
| 1–10 .. .. | 2 (4%) | 6 (12%) | 8 (16%) |
| 10–20 .. .. | 1 (2%) | 11 (22%) | 12 (24%) |
| 20–30 .. .. | 1 (2%) | 6 (12%) | 7 (14%) |
| 30–40 .. .. | 5 (10%) | 4 (8%) | 9 (18%) |
| 40–50 .. .. | 3 (6%) | 5 (10%) | 8 (16%) |
| 50 and over .. | 2 (4%) | 4 (8%) | 6 (12%) |
| | 14 (28%) | 36 (72%) | 50 (100%) |

*Preceding Infections*

| | | |
|---|---|---|
| Upper respiratory tract | 17 | |
| Following prostatic abscess | 1 | |
| Following axillary abscess | 1 | |
| | 19 | (38%) |

*Outcome*

| | | |
|---|---|---|
| Complete recovery | 11 | (22%) |
| Survival but poor outlook | 11 | (22%) |
| Result unknown | 1 | |
| Death from myelitis | 27 | (54%) |

*Onset*

| | | |
|---|---|---|
| Optic neuritis | 19 | (38%) |
| Myelitis | 23 | (46%) |
| ± Simultaneous | 8 | (16%) |

*Differences between onset of optic neuritis and of myelitis*

| | |
|---|---|
| Up to 10 days | 8 (16%) |
| Up to 1 month | 6 (12%) |
| Up to 1 year | 7 (14%) |
| Up to 2 years | 2 (4%) |
| ± Simultaneous (remainder) | |

*Cerebrospinal Fluid* (examined in 45 cases)

Cells (majority lymphocytes except 5 where polymorphs pre-dominated):

| | | |
|---|---|---|
| 0–5 per c.mm. | 23 | |
| 5–20 per c.mm. | 7 | |
| 20–50 per c.mm. | 6 | |
| 50–100 per c.mm. | 3 | |
| Over 100 per c.mm. | 6 | (in one 375 and in one 1,300 —remainder under 200) |

*Protein*

| | |
|---|---|
| Under 50 mg.% | 26 |
| 50–100 mg.% | 14 |
| Over 100 mg.% | 5 |

*Lange Curve.* Abnormal in 14 but no consistent pattern
*Pressure.* Normal except in 2 with spinal blocks
*Wassermann.* Consistently negative.

### DISCUSSION

In the diagnosis of these cases, and in previous publications, several difficulties are encountered. From autopsies done on many cases presenting typical features of neuromyelitis optica there is no doubt that it is a demyelinating disease, but whether a specific entity should be made of it or whether it should remain just one of the group has been disputed. The diseases of the group are: (1) Disseminated sclerosis, (2) diffuse sclerosis of the Schilder type, (3) the acute dissemminated encephalomyelitides, and (4) neuromyelitis optica.

Disseminated sclerosis is rare before puberty, whereas nearly 40% of the cases of Devic's disease occur in the younger age-group; nystagmus is very rare in Devic's disease and characteristic of disseminated sclerosis; the course of Devic's is relatively uniform even if it relapses, whereas disseminated sclerosis is a long-drawn-out disease usually with long periods of complete normality; sudden binocular loss of vision is common in Devic's but very rare in disseminated sclerosis and the visual loss in Devic's is far greater.

Diffuse sclerosis has very little in common with

Devic's disease except for the demyelination. Mental deterioration is very rare in Devic's disease.

Encephalomyelitis often has some obvious cause such as an infection, and cerebral signs and symptoms are very prominent. Though papilloedema may occur, visual signs of the Devic type are very rare.

The cause of Devic's disease has not so far been determined, though various theories have been produced. The possibilities are the following: (1) Infection, (2) toxins, (3) enzymes, (4) vascular obstruction, and (5) allergies.

That infection plays a part is very likely, for many cases follow an infection of some sort. Whether this acts directly on the nervous system or is an allergic reaction it is hard to say. Though many investigators have tried, no one has yet isolated a virus in any case. Toxins or allergies may be the result of infections, drugs, poisons, etc. The enzyme theory is that an enzyme-destroying lecithin acts on the nervous system, but what enzyme and what sets it off has not been determined. Vascular obstruction is hard to believe; one cannot picture why such specific areas and no others should be picked out in every case. On the whole, an allergic response to infection seems the nearest answer to the problem.

The typical clinical features are shown by the cases. The age can be anything from 6 to 60 years, but mainly young age-groups are affected. The onset is rapid, though the disease may be preceded by an upper respiratory infection. Either the eyes or the spinal cord may be involved first—the intervening period being slight, though occasionally reaching months. There may also be a period between the involvement of the two eyes. The symptoms related to the eyes are either pain in or behind the eyes on movement from optic or retrobulbar neuritis, or rapidly developing loss of vision. The signs usually consist of slight papilloedema in the early stages, with large pupils reacting poorly or not at all to light. Associated with this is loss of vision far greater than the papilloedema would indicate, usually central, and especially colour vision being lost. The discs may return to normal but in most cases remain pale. Vision can return to normal but often remains impaired to a greater or lesser degree.

Spinal symptoms may be ushered in by pain in the back or limbs, by weakness, or by interference in sphincter control. The picture on examination may be a diffuse myelitis involving one or several segments of the cord, a complete transverse lesion at any level, the Brown-Séquard syndrome, or one or more small discreet lesions involving one or several tracts. Motor or sensory systems may be involved. Recovery may be complete or partial, or an ascending lesion may lead to bulbar paralysis and death.

The cerebrospinal fluid may be normal, but in over half of the cases described there is a rise in cells, the lymphocytes usually predominating. The protein is high in over 50% of cases. In 2 cases described in the literature there was complete spinal block—McIntyre *et al.* (1952) and Marlcham *et al.* (1954). The Lange test is often slightly abnormal but there is no specific picture. The Wassermann reaction is always negative.

The outcome varies. Many authors, particularly the earlier ones, felt death was inevitable, the cause being from bulbar paralysis, pneumonia or urinary infection. Cases recovering completely are less than 25% of those described and in many of them the discs remained pale and vision slightly impaired. In neither of our cases has visual recovery been complete and in both the eyes have pale discs.

No treatment is really effective, though in case 1 one felt that cortisone may have helped and that relapses may have been related to stopping it.

Many cases have come to autopsy and at least 30 autopsies have been described.

The lesions are seen in the spinal cord, most frequently at the dorso-lumbar level, and in the optic pathways. The optic nerves, chiasma, track, geniculate bodies and radiations to occipital lobe and calcarine cortex may be involved.

The spinal cord and optic nerves are usually swollen and softened and there may actually be constriction of the optic nerves by the unyielding dura and bony foramina.

Microscopically the lesions resemble those of a severe acute disseminated sclerosis or encephalomyelitis, but there tends to be greater involvement of grey matter than is usually seen in these conditions. The predominating pathological change is that of demyelination but nerve-cell degeneration of all degrees of severity is seen in affected grey matter. Axis cylinders are also destroyed in the softened areas and macrophage lymphocytic activity is evident. In most cases coming to autopsy the process has been too acute to allow of much astrocytic gliosis.

## CONCLUSION

Neuromyelitis optica is not a rare disease, though not frequently seen in South Africa. All cases correspond to a fairly definite and typical picture of optic or retrobulbar neuritis associated with myelitis. The onset is usually rapid and the disease short-lived though relapses occur. Many patients die, though a considerable proportion recover completely. Some are left blind or crippled by the spinal deformity. Treatment has never been satisfactory though it is possible that cortisone helps.

## SUMMARY

Two cases of Devic's disease have been described and the main features of 50 others given. Brief mention of the diagnosis, etiology, clinical picture, outcome, pathology and treatment has been made. One concludes that neuromyelitis optica is a specific disease distinct from the other demyelinating diseases. Its cause is unknown but is is possibly related to infection. The clinical picture is one of optic or retrobulbar neuritis with myelitis. The outlook on the whole is poor and treatment, with the possible exception of cortisone, unhelpful.

I should like to thank the Superintendent of the Johannesburg Hospital for his permission to publish these cases, Dr. B. Ordman and Dr. S. Javett, under whose care they were treated, and Dr. Javett for his help in the follow-up of the second case. I thank too Dr. M. Franks and Dr. H. Kaye for their opinions on the

eyes of the two patients and Dr. N. Proctor for his advice on the pathology of the condition.

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# POST-VACCINAL ENCEPHALOMYELITIS

## REPORT OF TWO CASES TREATED WITH CORTISONE AND ACTH

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Post-vaccinal encephalomyelitis is one of those diseases with a widely varying incidence in different countries.[1] During a recent large-scale vaccination campaign in Cape Town 2 cases came under our care. Since the condition has not previously been reported as having occurred in South Africa, and since the treatment with ACTH and cortisone is still in the early stages of clinical trial, we report these cases and discuss their treatment. The clinical diagnosis of post-vaccinal encephalomyelitis is as yet a presumptive one, and it is with this reservation that the cases are reported under that title.

### CASE 1

Mr. E.B., a 47-year-old Norwegian, was admitted to the City Hospital at 6.30 p.m. on 22 December 1955. Fourteen days before this he had undergone a successful vaccination (vesiculation had occurred). He had previously been vaccinated as a small boy in Norway. Two days before admission there was a sudden onset of chills, fever and a frontal headache—the latter two symptoms being progressive till admission. A few hours after the onset of his symptoms he began to vomit and this persisted till the morning of the day of admission. One day before admission his legs became weak, he noted paraesthesiae across his abdomen, and he developed urinary retention necessitating catheterization. He noticed diplopia on the morning of admission. A review of the other systems was non-contributory. Seven years previously primary myxoedema had been diagnosed in him and he was on a maintenance dose of thyroid extract (3 gr. per day), which had kept him symptom-free.

Physical examination revealed a drowsy well-developed man in some distress from headache. The scab from his vaccination was present on the upper part of the outer aspect of the right arm. There was no lymph-node enlargement or tenderness. The oral temperature was 103°F, the pulse rate was 76 per minute (sinus rhythm), the blood pressure 130/80 mm. Hg, and the respiratory rate 26 per minute.

On neurological examination neck stiffness was found to be present. The pupils were equal and reacted briskly to light and on accommodation. The fundi were normal. There was paresis of the right 6th nerve but the other cranial nerves were normal. He was unable to sit up without using his arms. There was marked weakness and moderate hypotonia of both legs (the right more than the left). The finger-nose test was accurately performed and there was no dysdiadokokinesis. The heel-knee test was very poorly performed. Light touch was felt as paraesthesia over thoracic segments 8 to 10. There was gross depression of all modalities of sensation below T10. The biceps, triceps and periosteo-radial reflexes were normal and equal. The right knee-jerk was brisker than the left but the ankle jerks were equal. The abdominal and cremasteric reflexes were absent and Babinski's sign was present bilaterally. The rest of the physical examination was normal.

After admission the patient was catheterized owing to inability to void (hypogastric discomfort was present). The urine was normal. The sedimentation rate was 14 mm. in the 1st hour by Westergren's method, the haemoglobin 15 g.% and the VPC 48%. The white blood-cell count was 8,800/per c.mm., and the smear showed 72% polymorphs, 22% lymphocytes, 4% monocytes, 1% eosinophils and 1% basophils. The red cells looked normal and adequate numbers of platelets were seen.

Lumbar puncture produced clear cerebrospinal fluid containing 12 polymorphs and 44 lymphocytes per c.mm. The protein was 60 mg.%, the chlorides 700 mg.% and the glucose normal. No organisms were found with Gram and Ziehl-Neelsen stains or on culture. The blood and C.S.F. Wassermann reactions were negative.

Within 2 hours of admission the following scheme of treatment was started. Oral cortisone was given for 4 days—100 mg. *tds* on the 1st day, 50 mg. *tds* on the 2nd, 25 mg. *tds* on the 3rd, and 25 mg. *bd* on the 4th. ACTH was given for 8 days by intramuscular injection, starting on the 3rd day. 40 u. were given on each of the 3rd and 4th days, 20 u. on each of the 5th to 7th days, 10 u. on the 8th and 9th days and 5 u. on the 10th day. His maintenance dose of thyroid extract was given from 2 days after admission. He received no other drugs at all. His temperature declined rapidly, reaching 98·4°F 36 hours after admission. Thereafter it rose again slightly and fluctuated below 100°F for 5 further days (the catheter was in during this period). The encephalitic symptoms improved rapidly and 24 hours after admission he was quite alert, the headache was only slight and the diplopia and right 6th nerve paresis had disappeared.

The myelitic symptoms and signs improved more slowly. Two days after admission he was able to sit with ease, the knee jerks were equal and the cremasteric and abdominal reflexes

were present. An indwelling catheter which had been inserted on the day after admission was removed on the 6th day and he had no further urinary difficulty. By this time significant objective sensory disturbance was no longer present but paraesthesiae in the legs and eventually only in the feet persisted till 16 days after admission. The left plantar reflex became flexor 5 days after admission and the right plantar 12 days after admission.

The patient was discharged 21 days after admission without any neurologic symptoms or signs.

### CASE 2

H.C., a 10-year-old European female, was admitted to the City Hospital on the evening of 27 December 1955. Fifteen days before admission she had been vaccinated successfully for the first time. One day before admission she complained of headache, became feverish, and was unusually quiet. From the morning of the day of admission she had lain curled up in bed as if asleep. No convulsions had occurred.

Physical examination showed a stuporose child lying curled up in bed. Vaccination scars were present on the upper part of her left arm and the regional lymph-nodes were enlarged. The oral temperature was 101·8°F, the pulse rate 100 per minute, the respiratory rate 24 per minute, and the blood pressure 125/70 mm. Hg.

Neurological examination revealed neck stiffness and the presence of Kernig's and Brudzinski's signs. The pupils were equal and reacted briskly and the rest of the cranial nerves as far as could be tested showed no abnormality. There were no motor abnormalities, the deep reflexes were all present and equal and the plantar reflexes were flexor. The rest of the physical examination was negative. The white blood-cell count was 20,000 per c.mm. Lumbar puncture produced a hazy fluid containing 30 polymorphs and 120 lymphocytes per c.mm. The protein was 40 mg.% and the chlorides 695 mg.%, the glucose was normal, and there were no organisms to be found.

On the morning after admission her temperature was 99·8°F and her level of consciousness had improved to the extent that she was now confused and restless. At this time cortisone administration was started and it and ACTH were given according to the scheme outlined in the previous case. On the morning of the 2nd day after admission her temperature was normal and remained so, and her level of consciousness had improved to the extent that she could answer questions with 'yes' or 'no'. Thereafter improvement was rapid; her mental state was quite normal and there were no abnormal signs 3 days after admission. She was discharged completely well and with no abnormal neurological signs 21 days after admission.

### DISCUSSION

The incidence of encephalomyelitis in reported series has been:[1] Holland 1 : 4,656 vaccinations (186 cases between 1924 and 1931), Sweden 1 : 20,000 (38 cases between 1924 and 1933), England 1 : 33,000 (175 cases between 1922 and 1929),[2] Germany 1 : 100,000 (134 cases between 1927 and 1933), United States 1 : 110,000 (45 cases in 1947).[3] It has not been reported from Soviet Russia or Spain. Most of the cases occurred after primary vaccination and as a sequel to revaccination it is very rare—not more than 1 : 50,000 vaccinations in Dutch experience and about 1 : 800,000 in Germany—hence the especial interest of case 1. The increased incidence in Holland appears not to depend on the type of serum used there, since there was no decline in incidence when Spanish serum was used.

The disease is practically unknown in infants vaccinated under the age of 1 year, the bulk of cases occurring with primary vaccination of children between the ages of 3 and 13 years.[4] The limits of the period between primary vaccination and nervous disease have extended from 5 to 23 days;[5] in 4/5ths of cases it ranges between 9 and 13 days, with a predilection for the 11th or 12th day after vaccination. After revaccination the period is shortened as a rule even to 2 or 3 days.[6]

*Clinical Course.* In most cases the onset is sudden and progress rapid. The disease starts with headache, drowsiness, vomiting and fever. In children fits are common. Ocular palsies, inequality of pupils, and disturbed pupillary reactions, may occur. The ocular fundi are usually normal but transient papilloedema has been observed. Flaccid or upper-motor-neurone paralysis of some of the limbs often develops and is associated with absent deep and extensor plantar reflexes. Disturbance of the rectal and urinary-bladder sphincters is frequent. Neck rigidity was noted in half of van Hunsel's 108 cases.[7] Transverse myelitis may be unaccompanied by encephalitis. Rare symptoms which have been described are choreic or athetotic movements, tremor, dysarthria, dysphasia, ataxia, hiccup, neurotic symptoms, hyperidrosis and salivation.

As a rule the cerebrospinal fluid either is normal or shows a moderate lymphocytosis (up to 400 per c.mm.[3]) with excess of protein.

Acute phases seldom last longer than a week and are often briefer; in those who survive, complete recovery within a space of perhaps another week is the rule, though it may be delayed for months. The mortality rate is high. It has oscillated in Holland between 25 and 59% with an average of 31%. In England it averages about 30%.[8] Greenberg and Appelbaum[3] reported a mortality of 4 among 45 cases. Death is usually due to exhaustion, coma, respiratory paralysis, or bronchopneumonia. If recovery occurs it is usually remarkably complete and residual symptoms are exceptional.

*Pathology.*[9] Naked-eye changes consist of congestion and oedema of the nervous system. Microscopically there is marked perivascular infiltration of mononuclear cells. The most characteristic feature of the inflammation is the occurrence in the white matter of zones of demyelination around the vessels, especially the veins. Necrosis of nerve cells and neuronophagia is not seen. The most intense changes are encountered in the lumbar and upper sacral regions of the spinal cord and in the pons. In the mid-brain, the substantia nigra is the structure most affected. Inflammatory changes may be present throughout the whole length of the nervous system.

*Treatment.* The high mortality rate of the disease (30-50% in most series) and the lack of a proven therapeutic agent have prompted the trial of new methods of treatment. (Intrathecal or parenteral immune serum has been recommended[10] but there is no definite evidence that it is of value.) Since the disease may spontaneously reverse its course from progression to rapid recovery conclusions cannot be drawn from individual cases but will have to rest on the evidence obtained from controlled trials. At first sight, the problem of whether a given therapeutic method is effective or not should be more readily solved with post-vaccinal encephalitis than with the other post-infective encephalitides because of its greater mortality rate. But the mortality rate varies; in Greenberg and Appelbaum's series,[3] it was as low as 4 of 45 cases, and this possibility of a greatly varying mortality rate

must temper with caution optimistic assessments of the results of clinical trials.

In most studies post-vaccinal encephalomyelitis is considered together with the other acute post-infective encephalomyelitides because of their similar clinical and pathological features, and discussion of the rationale of therapy will be on the basis of post-infective acute encephalomyelitis in general.

*Rationale of Therapy.* There is at present no final agreement on the pathogenesis of acute post-infective encephalomyelitis,[11] but there is a fair amount of evidence that it may depend to some extent on an allergic mechanism. Miller,[12] in 1951, drew analogies between the neurological syndromes of serum sickness, polyarteritis nodosa and acute disseminated and post-infective encephalomyelitis. In all of these conditions there is a tendency to gross and often evanescent focal symptoms arising at every level of the nervous system, and occasional apoplectic syndromes suggestive of lesions involving the major cerebral blood-vessels. Similar histological changes concentrated in close relation to the cerebral vasculature occur in all the post-infective encephalomyelitides. Also a suitable time-interval appears necessary between the inciting disease or injection and the development of encephalitis (presumably the time necessary for the development of hypersensitivity). On the basis of these observations Miller suggested that some such cases of acute encephalomyelitis might have their foundation in an allergic vasculitis and that the trial of cortisone and ACTH in their treatment might produce favourable results.

A fair amount of indirect experimental evidence can also be cited in favour of the allergic hypothesis. Encephalomyelitis histologically similar to the human form may be induced by single or multiple 'sensitizing' subcutaneous injections of brain, spinal cord or nerve emulsions into rabbits, monkeys, guinea-pigs and other animals.[13] The experimental syndrome may be inhibited by agents known to inhibit the development of hypersensitivity, such as pyromen, salicylates, para-aminobenzoic acid nitrogen mustard, and particularly cortisone and ACTH,[13–17] and is accentuated by the use of the Freund adjuvant.[18]

*Results of Therapy.* Since Miller's suggestion there have been several reports of the use of ACTH in encephalomyelitis, well summarized by Selling and Meilman.[19–25] Using the criterion that significant objective improvement starting within 24 hours is due to the therapy, [20,19] 14 episodes out of 19 (occurring in 11 out of 16 patients) were considered to have been favourably influenced. In 3 of the other 5 cases improvement started between 48 and 72 hours after the start of therapy, in one (the only case of the 16 who had no prodrome or preceding injection) the illness was quite unaffected and resulted in severe neurologic signs, and in the other (a case of post-measles encephalomyelitis) death occurred on the 2nd day of treatment. The relapses associated with reduction of dosage noted in Miller's first case[20] and in Selling and Meilman's case,[19] and the resumption of improvement when the dosage was increased, render coincidence a not entirely satisfactory explanation for the results observed.

We have found only 2 reports of ACTH therapy in post-vaccinal encephalomyelitis. Ligterink[21] reported 2 cases in which he considered benefit to have been obtained, and a few cases were reported in the *U.S. Armed Forces Medical Journal*[25] to have benefited.

Both of our cases exhibited significant objective improvement within 24 hours of starting therapy, but in Case 2 some improvement had already occurred before treatment was started. Nevertheless, as Ligterink[21] pointed out, proper evaluation of the usefulness of this type of therapy will have to await reports based on controlled trials and these are awaited with interest.

The clinical usefulness of this type of therapy will need to be solidly founded since these drugs are not without their dangers. Aside from their generally potentially harmful effects, their use without appropriate chemotherapy in bacterial (and probably virus) infections of the nervous system might be disastrous.

SUMMARY

Two cases of post-vaccinal encephalomyelitis treated with cortisone and ACTH are described. The rationale of this treatment and its clinical applications are discussed.

We wish to thank Prof. E. D. Cooper and Dr. H. R. Ackermann for permission to publish these cases. We also wish to thank Prof. F. Forman, Dr. S. Berman and Dr. J. McW. MacGregor for helpful advice.

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# A 'LIVELY' SPLINT FOR THE FLAIL HIP

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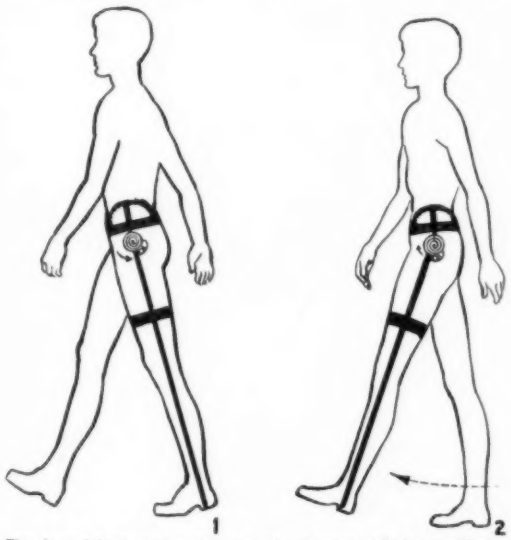
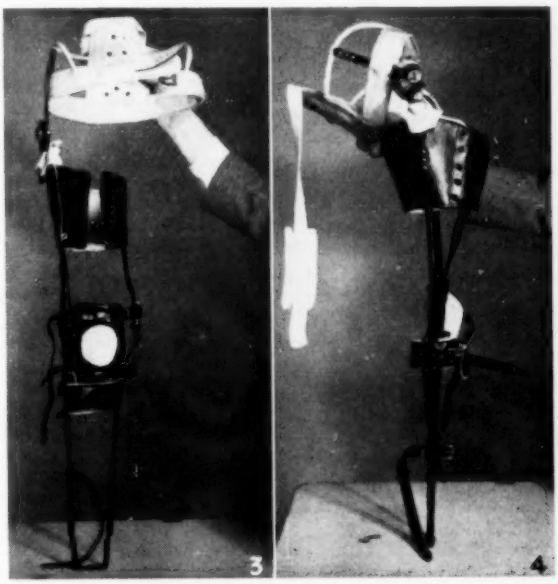
The patient with a flail hip walks at a great disadvantage. Instead of the normal pendulum motion at the hip, the trunk on the affected side must drag and swing the leg forward. Awkwardness is exaggerated by the sway and dip of the 'Trendelenburg' gait and, if the leg as well is paralysed, the weak side is encumbered by the additional weight of a caliper.

The splint to be described has been built on the principle that little force is required to *initiate* the swing of a pendulum, and that if the leg is to be used as a pendulum, the length and weight of the splint are an advantage. The splint has 3 parts:

1. The pelvic brace—a light, leather-covered metal frame which is adapted comfortably and firmly to the contours of the pelvis, thus giving stability to the spring and caliper below. In the line of the trochanter of the femur the brace has a bar which meets an extension of the lateral bar of the caliper at a joint with a coil spring. The centre piece at the back reaches above the pelvis to act as a lever by which extension of the spine may control the hip spring.
2. A light caliper with a corset for the thigh and the lateral bar extending upwards, as described in (1). The caliper need not be weight-relieving, as in this apparatus the patient takes weight normally through the hip joint, but if the hip is very weak a thigh corset taking weight from the ischial tuberosity adds to stability.
3. A joint-and-spring mechanism so fitted that when the thigh is extended the spring winds up. When weight is shifted to the other leg, the recoil strength of the spring is sufficient to initiate the forward swing of the limb.



*Figs* 1 *and* 2 show in diagram the 3 parts of the appliance. In Fig. 1 the spring is wound. In Fig. 2 the spring is released swinging the leg forward and so initiating a fairly normal stride.



*Figs* 3 *and* 4 show the spring from the front and from the side. Chamois-leather cover of the spring is undone.

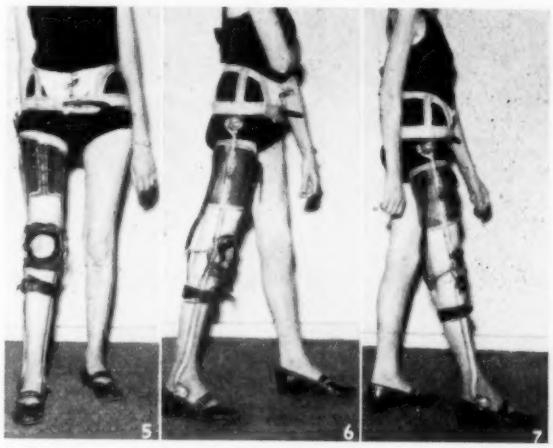


*Fig.* 5 shows a patient with a flail right leg in the splint. She is wearing a concealed foot-drop appliance.
*Figs.* 6 *and* 7 show the stride she can take.

By taking a stride forward with the sound leg, the spring is coiled. A tilt on to the sound leg lifts the flail leg which, as the spring unwinds, immediately swings forward in a fairly normal-looking stride. The following step by the sound leg rewinds the spring, and so on. The spring mechanism is not bulky and is inconspicuous under the patient's clothes. The winding of the spring is assisted by straightening the back and, with practice, a strong back can give a strong stride.

When designing the splint, I hoped it would give the patient a stride entailing less effort and of more normal type, but it is satisfying to find that, to an extent, the splint also relieves the Trendelenburg dip. Once the new walk is mastered the patient feels improved stability of gait and stance.

Figs. 1-8 show the splint, firstly in diagram, and then as used by a patient. This patient is wearing a concealed foot-drop appliance.

Fig. 9 shows a patient in whom the foot has been stabilized. The splint controls the knee and does not extend below the calf.

Figs. 10 and 11 show a short splint which can be used for a flail hip with good thigh muscles. It is worn by a member of the hospital staff with normal muscles, to demonstrate the possible range of flexion-extension. The force of the spring may be compressed or relaxed by using different holes in the ratchet.

The springs have a chamois-leather cover, shown in Figs. 3 and 4, to prevent friction on the clothes.

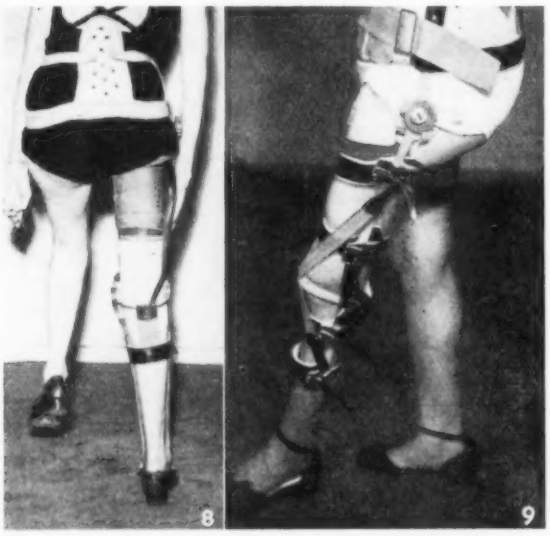
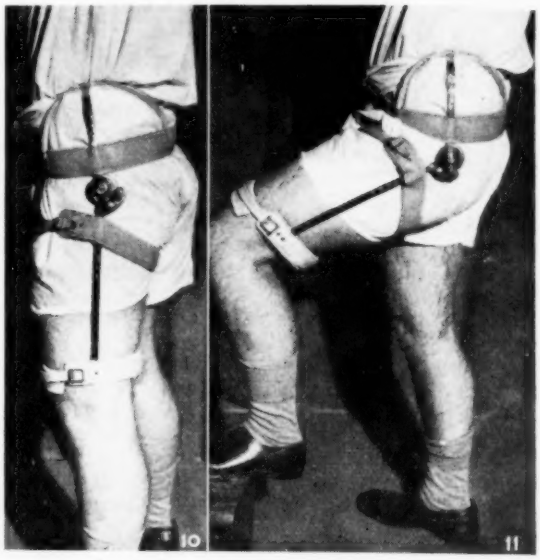


*Fig.* 8 shows the stability that the flail limb can achieve in this appliance.
*Fig.* 9. This patient has had her foot stabilized by operation. The appliance, therefore, is shorter, and controls only the hip and knee. At the time the photograph was taken the spring was released.



*Figs.* 10 *and* 11 show a short splint which can be used for a flail or weak hip with good thigh muscles. It is also useful in some instances after arthroplasty of the hip in re-training the patient in walking.

*Weakness of Extension of the Hip*

One finds an occasional patient who cannot stand properly because of weakness of extension of the hip. This may follow isolated muscle paralysis from polio, or long-standing fixed flexion deformity. For such disability, as a support during the rehabilitation period, I have used the short type of splint shown in Figs. 10 and 11, but with the spring reversed. This means that the spring is tensed by flexing the hip and the recoil promotes extension and supports the patient when standing straight. It may be uncomfortable after sitting for a length of time and may then have to be removed, but should be worn for exercise periods and when the patient is up. We have not yet perfected a release mechanism. The short splint may also be used in the rehabilitation of patients after arthroplasty of the hip.

It is interesting to record that patients suffering from poliomyelitic weakness of the muscles of the hip and who have dragged themselves about for years on an ordinary caliper, do sometimes show a remarkable recovery of power in these muscles after walking for a time with the 'lively' splint. They are of course now exercising the muscles without overloading.

To give the spring a stable base on which to work it is essential that the pelvic brace should fit firmly and snugly. Otherwise the brace slips when the patient walks and the recoil of the spring loses much of its effect. The spring is a flat coil of the type used in motor-car windows.

The splints have been constructed for me by Mr. Hodges and Mr. Krumbock of Messrs. A. H. Hodges and Co. and by Mr. T. Davies of the Provincial Orthopaedic Workshops, and whose help I acknowledge and greatly appreciate.

# SPONTANEOUS HAEMOPERICARDIUM

H. GRUSIN, M.B., B.CH. (RAND), M.R.C.P. (LOND.)

*Lately Physician, Baragwanath Hospital, Johannesburg*

Haemopericardium as opposed to haemorrhagic pericarditis may be due to trauma or disease causing rupture of a vessel or heart chamber into the pericardium, to haemorrhagic states such as leukaemia, or to neoplasms of the heart or pericardium.[1] In this paper 2 cases of haemopericardium are reported for which no obvious cause could be found.

## CASE REPORTS

*Case* 1

J.N., a male African aged 43, was admitted to Baragwanath Hospital complaining of backache and haematuria for one week. He was dyspnoeic and had the signs of congestive cardiac failure, namely raised jugular venous pressure, moderately enlarged tender liver, and sacral and pedal oedema. The heart was enlarged to percussion and the sounds muffled. He had cold hands and a paradoxical pulse; blood pressure 120/100 mm. Hg. The electrocardiogram showed QRS complexes of normal voltage and non-specific T-wave inversions.[2]

The following abnormal signs were also found: temperature 99·6°F; spongy, bleeding gums; haematuria but no casts (blood-urea normal); tenderness over the mid-dorsal spine (X-ray showed osteoporotic collapse of several vertebrae).

A bedside X-ray showed globular enlargement of the heart shadow (Fig. 1). The pericardial sac was tapped and 120 ml. of blood-stained fluid withdrawn. Repeat X-ray after pericardial aspiration showed a thin parietal pericardium (Fig. 2). The aspirated fluid contained 6·6 g.% of haemoglobin and numerous red blood-cells. There were no organisms or inflammatory cells; the result of guinea-pig inoculation was negative. The triad of spongy gums, haematuria, and haemopericardium, suggested that the patient might be suffering from a bleeding disease. However, there was no purpura and the blood count, platelet count, bleeding time and coagulation time lay within normal limits. The patient denied taking any drugs before admission. There was no history of trauma. The Mantoux test 1/1,000 was positive.

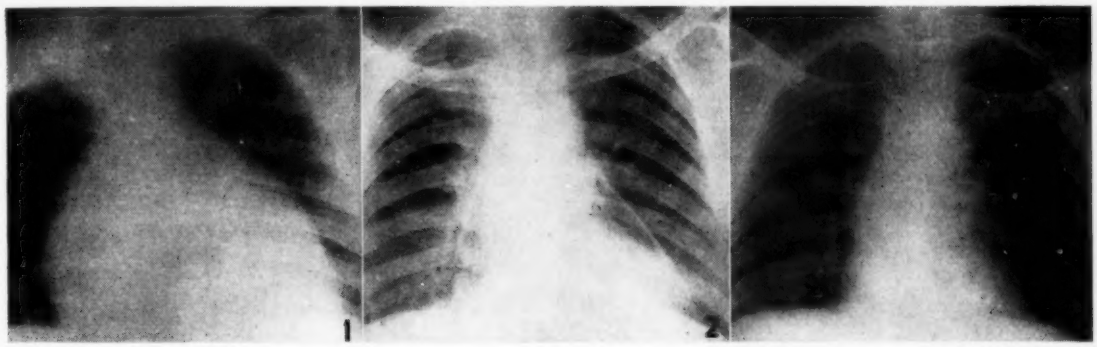



*Fig.* 1. Case 1. Bedside X-ray, showing enlargement of the heart.

*Fig.* 2. Case 1. X-ray after aspiration, showing thin parietal pericardium.

*Fig.* 3. Case 1. X-ray 2 weeks after aspiration. Two years later the appearances were unchanged.

On the assumption that he might be suffering from scurvy he was treated with ascorbic acid, 500 mg. *per diem* intramuscularly. Within 10 days he had lost all his abnormal signs and his heart had returned to normal size (Fig. 3). His gums improved, his haematuria cleared rapidly, and renal function tests and pyelography revealed no abnormality. Two years later he had no clinical or radiological evidence of cardiac or renal disease. His spine was still osteoporotic.

*Case* 2

J.T., a male African aged 32, was admitted to Baragwanath Hospital complaining of chest pain and haemoptysis for one week. He was febrile (100°F), dyspnoeic, and in a state of mild congestive cardiac failure. The heart was not obviously enlarged but the sounds were muffled. He showed striking pulsus paradoxus. The electrocardiogram showed changes consistent with the presence of pericardial fluid, i.e. low voltage QRS complexes, with flattening or mild inversion of the T waves in all leads. Radioscopy revealed a big motionless heart shadow. One hundred ml. of blood-stained fluid were removed by pericardial tap; the parietal pericardium was thin (Fig. 4). As in the previous case there were

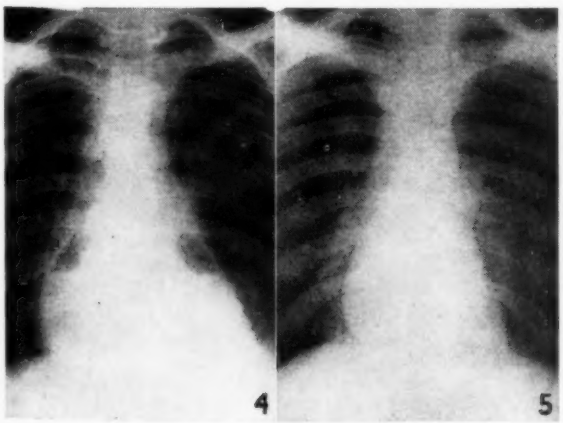



*Fig.* 4. Case 2. X-ray after aspiration.

*Fig.* 5. Case 2. X-ray 2 weeks later. Subcutaneous emphysema appeared after pericardial aspiration.

no clinical or laboratory signs of a bleeding disease and no evidence of infection in the pericardial fluid. There was no history of trauma or previous medication. The Mantoux 1/1,000 was positive.

The patient was maintained on a vitamin-C-free diet and given no other treatment. Within a fortnight he had recovered completely by clinical and radiological standards (Fig. 5) and has not relapsed after 2 years.

## DISCUSSION

The first question to decide was whether these 2 patients were suffering from haemopericardium or haemorrhagic pericarditis. The clinical features and laboratory findings were against rheumatic or uraemic pericarditis. The problem was whether low-grade tuberculous pericarditis could be excluded; in Africans the commonest causes of haemopericardium are trauma and tuberculous pericarditis. The clinical course of tuberculous effusion is quite different from that described in these 2 patients. The onset is usually insidious, there is constitutional disturbance, the effusion is massive, the parietal pericardium is thick and resolution, when it occurs, takes months. On the other hand milder types of tuberculosis are occasionally seen with smaller effusions and a thin pericardium. Whether the course of tuberculous pericarditis can ever be as benign as that of the cases described here is not certain but it is believed that tuberculous pleural effusions can be small and symptomless and may absorb completely.[3,4]

If these cases are examples of haemopericardium, what is the cause of the bleeding? In view of their benign course it is most unlikely that neoplasm or rupture of a vessel or heart chamber was responsible. Bleeding diseases due to platelet deficiency or coagulation defects were excluded. The question remains whether some other haemorrhagic diathesis was present. In case 1 the spongy gums and haematuria suggested the diagnosis of scurvy. It has been pointed out that scurvy may present as isolated haemorrhage without evidence of bleeding elsehwere.[5] Such haemorrhage is usually seen in the gums or the muscles of one leg, and is unusual in serous cavities apart from joints. In a series of 40 scorbutics in this hospital haemorrhagic effusions into serous cavities were not encountered and, conversely, in patients with haemorrhagic pleural or pericardial effusions other evidence of overt scurvy was rarely found. In case 2 the diagnosis of scurvy is untenable unless the patient had access to vitamin-C-containing foods unbeknown to us.

In Africans an occasional case of haemorrhagic pleural or pericardial effusion with thin parietal pericardium is encountered, for which no cause can be found at post-mortem.[6] Full blood-studies have not been done in all these cases; moreover, it is known that even in tuberculous effusions evidence of infection may not be found microscopically unless serial sections are painstakingly examined.[7]

This paper is intended to draw attention to the fact that haemorrhagic pericardial effusions in Africans occur for no obvious cause. The occasional example may be due to scurvy but in other cases which apparently occur spontaneously it is difficult to exclude tuberculosis with certainty.

I wish to thank Dr. J. D. Allen, Superintendent of Baragwanath Hospital, for permission to publish these cases and Mr. A. Shevitz for the photographs.

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## INTERNATIONAL CONGRESS FOR THE DEFENCE AND SOCIAL REHABILITATION OF THE LEPER

At the International Congress for the Defence and Social Rehabilitation of the Leper, which was held in Rome on 16-18 April 1956, the Congress, considering 'that leprosy is a disease of low contagiousness and amenable to treatment', passed the following resolutions:

1. (*a*) That patients afflicted with the disease be treated as are those suffering from other infectious diseases, tuberculosis for example, without any other special regulations whatsoever; and that, in consequence, all discriminatory laws be abolished.

(*b*) that in countries where leprosy is a problem, carefully planned propaganda measures be taken to promote public understanding of the true nature of leprosy and to remove all prejudices and superstitions associated with the disease.

2. (*a*) That measures be adopted for early discovery and treatment of cases. Patients should be left at home provided that the state of their disease does not constitute a danger to their associates; this should have an important favourable psychological effect.

(*b*) That in countries where economic and medical resources are inadequate, but where endemicity is high, a mass treatment campaign be undertaken to control the disease; hospitalization should be limited to those whose condition requires special medica and/or surgical treatment and should terminate when such treatment is completed.

(*c*) That children be protected from the infection by every approved biological means. Removal to a preventorium should be resorted to only in cases of absolute necessity, because of the distressing stigma attached to the residence in such institutions.

(*d*) That governments be encouraged to grant to those seriously disabled the moral, social and medical assistance necessary for their protection and rehabilitation, through the agency of various governmental departments, such as social welfare, agriculture, and education, which will have a beneficial psychological effect both on the patients and on the public.

The principal subjects considered at the Congress were as follows: (1) Recent progress in the therapy of leprosy; (2) New trends of the social organization of leprosy control services; (3) Prophylaxis and protection of the child; (4) Social, occupational, and surgical rehabilitation. Addresses were also given on the activity of the World Health Organization in the field of leprosy, the history of the disease, and other aspects of the subject.

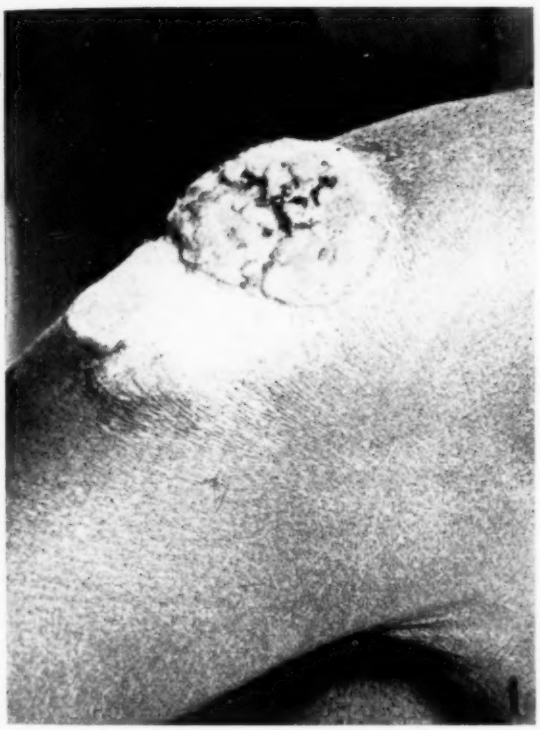
# SQUAMOUS CARCINOMA ON VACCINATION SCAR

ERIC REA, M.B. (BELF.), F.R.C.S. (EDIN.)

*Wankie Colliery Hospital, Southern Rhodesia*

The following unusual case is reported, as we have not been able to trace any similar one in the available literature.

*History:* An African female, aged about 40 years, of a very primitive tribe living along the banks of the Zambezi, was vaccinated with others 'before the last rains', possibly about 1 year previously. (This was the nearest approximation to time that could be obtained.) She was vaccinated on the left arm, a large area of skin 2×3 inches was involved in the subsequent scar, and some time later she noticed a sore developing at the site and eventually arrived in this hospital on 25 August 1955.



*On examination* an old white scar 2×3 inches was seen on the left upper arm, the upper half of which was filled by a tumour projecting 1/4 inch from the surface, hard to the touch, and bleeding freely after slight trauma (Fig. 1). There was some secondary infection. Glands in left axilla were enlarged. The Kahn test was negative.

*Biopsy* (26 August), reported by Dr. B. S. Tulloch, Director, Public Health Laboratory, Bulawayo, was as follows: 'The tumour has the structure of a low-grade and well-differentiated squamous carcinoma, showing gross hyperplasia of the epidermis with extension into the corium and the formation of cell nests' in places. Considerable pyogenic reaction in addition is present.

*Operation* on 6 September. The whole scar-area was widely excised and immediately grafted with thick split-skin graft, sutured in place. The axilla was cleared of glands through a separate incision. These glands were reported on as inflammatory only—no secondaries present. The graft 'took' uneventfully, and the patient was discharged on 10 October 1955.

*Comment.* Squamous carcinoma is of course a possible complication of long-standing chronic ulceration, but the present case is interesting in that the tumour developed on a vaccination scar in apparently a very short time after inoculation, and local growth was very rapid without obvious metastasis.

My thanks are due to Dr. A. F. Kennedy, *O.B.E.*, M.D., F.R.C.P.I., Chief Medical Officer, Wankie Colliery Hospital, for permission to report this case, and to Dr. B. S. Tulloch for the pathological report.

## PASSING EVENTS : IN DIE VERBYGAAN

*A Conference will be held* by the Society for the Study of Fertility on 14 June 1956 at the Meeting House of the Zoological Society of London, Regent's Park, and on 15 June at the National Institute for Medical Research, Mill Hill, London. The details of the papers to be submitted are as follows: 'The role of seminal fluid in fertility'; 'The influence of varicocele on spermatogenesis'; 'Clinical investigations of a new long-acting progestational compound in infertility'; 'Testicular biopsy in sterile and subfertile males'; 'Pregnancy following artificial insemination from epididymal cyst'; 'Brief evaluation of therapeutic measures used at an infertility clinic during the past 20 years'; 'Progress and problems in sterility'; 'The clinical management of suspected tuberculosis of the pelvis'; 'The therapeutic value of Hysterosalpingography in the management of subfertility'; 'The etiology, treatment, and prognosis of cornual occlusion of the fallopian tubes'; 'Foetal atrophy in the rabbit'; 'Mechanism of speriation in the male frog *Rana esculenta*'; 'Histological changes of the normal and pathological puberal human testis'; 'The activation of motility in spermatazoa'; 'Studies relating to the storage of mammalian spermatozoa'; 'The use of partitioned ejaculates in investigating the role of accessory secretions in human semen'; 'The effect of high temperature on spermatogenesis'; Compensatory hypertrophy of the rat testis'; 'The effect of chorionic gonadotrophin on spermatogenesis in the mature rat'.

* * *

*The Sixth International Congress of Otolaryngology* will be held on 5-10 May 1957 at Washington, D.C., USA. The scientific programme will comprise 3 Plenary Sessions at which the following subjects will be discussed: (1) Chronic Suppuration of the Temporal Bone; (2) Collagen Disorders of the Respiratory Tract; (3) Papilloma of the Larynx; and original papers on other subjects

will be presented. Films will be shown and scientific exhibits will be on display. The official languages of the Congress are English, French, German and Spanish.

The social events will be included and daily sight-seeing tours of Washington and its environs will be available to Members and Associated Members of Congress. Three conducted tours arranged by the American Express Company will begin immediately after the close of the meetings; (1) Eastern US, (2) Middle West, and (3) West Coast. Registration Fees: Members of Congress $25.00, non-medical Associate Members $10.00. Enquiries concerning the Congress may be sent to Dr. Paul H. Hollinger, General Secretary, 700 No. Michigan Avenue, Chicago 11, Ill., USA.

Applications to present a scientific exhibit must be received before 1 August 1956. Application forms and abstracts of papers to be presented must reach the General Secretary not later than 1 October 1956.

* * *

*Other international meetings* that will be held at about the same time as the Sixth International Congress of Otolarngology at Washington on 5-10 May 1957 are as follows:

*The Sixth International Congress of Bronchoesophagology*, 12-13 May 1957, will be held at Philadelphia, P.A. Enquiries of Dr. Chevalier L. Jackson, 3401 No. Broda Street, Philadelphia 40, Pa, USA (included in all three tours mentioned above).

*The International Congress of Audiology*, 14-16 May 1957. will be held at St. Louis, Mo. Enquiries of Dr. S. Richard Silverman, 818 So. Kingshighway, St. Louis 10, Mo., USA. (included in tours 2 and 3 mentioned above).

* * *

*The International Voice Conference*, dealing with laryngeal research, function and voice therapy, 20-22 May 1957, will be held in Chicago, Ill. Enquiries of Dr. Hans van Leden, 30 No. Michigan Avenue, Chicago 2, Ill., USA. (included in tour 2).

*In connection with the Sixth International Congress of Otolaryngology* the following postgraduate courses are to be held:

1. 13-18 May 1957. *An Introduction to the Principles of Nasal Septum and External Pyramid Surgery*. Director: Dr. Maurice H. Cottle, 30 No. Michigan Avenue, Chicago 2, Ill. USA.

2. 15 May-22 June 1957. *Endaural Temporal Bone Surgery, including the Fenestration Operation*. Director: Dr. Julius Lempert, Lempert Institute of Otology, 119 E. 74th Street, New York 21, N.Y., USA.

3. 19-31 May 1957. *Bronchoesophagology*. Director: Dr. Chevalier L. Jackson, Temple University School of Medicine, 3401 No. Broad Street, Philadelphia 40, Pa., USA.

4. 27-31 May 1957. *Allergy and Other Phases of Medical Otolaryngology*. Director: Dr. French K. Hansel, Hansel Foundation, 634 No. Grand Avenue, St. Louis 4, Mo. USA.

5. 7 days: dates not yet determined. *Rhinoplastic Surgery*. Director: Dr. Samuel Fomon, American Academy of Plastic Surgery for Head and Neck, Manhattan General Hospital, 307 Second Avenue, New York, N.Y., USA.

* * *

*Dr. E. D. Sonnenfeld*, late mine Medical Officer to the Anglo-Transvaal Mining Company, will commence general practice in Virginia, Orange Free State, on 1 July 1956.

* * *

*Mr. Paul Marchand*, M.Ch. (Rand), F.R.C.S. (Eng.) is now in partnership with Mr. L. Fatti and will practice as a consultant thoracic surgeon at the Princess Nursing Home, Esselen Street, Hillbrow, Johannesburg. Telephones: rooms 44-1955, residence 48-8809.

* * *

*Dr. Charles Berman*, M.D., M.R.C.P., of Maraisburg, Transvaal, has been invited to attend the 3rd United States National Cancer Conference to be held at Detroit, Mich. on 4-6 June, as a guest of the American Cancer Society.

* * *

*The Medical Graduates Association* (University of the Witwatersrand) and Rand Medical Discussion Circle invites all medical practitioners to attend a meeting to be held on Thursday, 28 June at the Harveian Lecture Theatre, Medical School, Johannesburg, at 8.15 p.m. Dr. J. H. S. Gear will speak on *Poliomyelitis and Vaccination*.

* * *

*In the article* 'The problem of Intersex' *by Drs. R. Hoffenberg and W. P. U. Jackson* which appeared in the issue of the *Journal* of 5 May 1956 the illustration on page 421—*Fig.* 6. *Case* 2. (*L.R.*) *Injection of dye displays uterus and left fallopian tube*—was, by error, inverted.

* * *

*Dr. H. R. Liebermann* has changed his residential Telephone number to 7-6898 from 25 May 1956.

## NEW PREPARATIONS AND APPLIANCES : NUWE PREPARATE EN TOESTELLE

M. and J. Pharmaceuticals Ltd. announce '*Mandelamine*' '*Hafgrams*' as a presentation of Mandelamine which has hitherto been available in 0·25 g. tablets. 'Mandelamine' has a specific action confined to the urinary tract, and was developed as a complement to the sulphonamides for use where their suitability or safety is doubtful.

The makers state that 'Mandelamine' therapy is safe, its side effects rare and mild and never cumulative; that it may be sustained for long periods, and that the risk of drug-resistance is negligible. It is especially suited to cases where the urinary infection is chronic or recurrent, or the patient elderly or enfeebled.

'Hafgrams' are available in bottles of 30 and 250. The 0·25 g. tablets are still available.

* * *

*Equanil* (Meprobamate, Wyeth) the dicarbamate ester of the propanediol derivative, is a new anti-anxiety agent with muscle-relaxing properties.

The manufacturers state that studies in animals indicate that Equanil shares the muscle-relaxing action of mephenesin, another propanediol derivative, but has an action of much longer duration. Indications for its use are anxiety and tension states, alcoholism, muscle spasm, and epilepsy. Although not a hypnotic, the new remedy, in many cases, relieves insomnia by lessening anxiety, irritability and restlessness. The suggested dosage is one 400-mg. tablet before each meal and 1 hour before retiring.

Equanil is supplied in bottles of 24 400-mg. tablets.

* * *

*Drynamyl Spansule Capsules*. Following the recent introduction of 'Dexedrine Spansule' Capsules, M. & J. Pharmaceuticals (Pty.) Ltd., on behalf of Smith Kline and French International Co., announce the availability of 'Drinamyl Spansule' Capsexe- in two strengths, viz. No. 1 Strength containing 10 mg. of 'Dules drine' and 1 gr. of amylobarbitone, and No. 2 Strength containing 15 mg. of 'Dexedrine' and 1½ gr. of amylobarbitone.

In 'Spansule' capsules the medicament is divided between a large number of tiny pellets, some of which are protected by special coatings of various thicknesses. The capsule is taken first thing in the morning and dissolves immediately, freeing the pellets. Some pellets disintegrate at once, to ensure a rapid response, and the specially-coated ones disintegrate over the next 8-10 hours at a rate just sufficient to maintain a steady therapeutic effect.

* * *

Westdene Products announce: *Cordex Tablets*, combining the anti-inflammatory antirheumatic action of delta-1-hydrocortisone with the analgesic action of acetylsalicylic acid, are designed primarily for use in patients with mild to moderate rheumatic conditions.

Each tablet contains: Delta-1-hydrocortisone 0·5 mg.
(11b, 17a, 21-Trihydroxy-1, 4-pregnadiene-3, 20-dione.)
Acetylsalicylic Acid, 300 mg.

*Indications:* Cordex Tablets are indicated in the following conditions when they are of mild to moderate severity and are not controlled by salicylates alone: rheumatoid arthritis, osteoarthritis, gouty arthritis, bursitis, tenosynovitis, myositis, fibrositis and neuritis.

*Dosage:* The usual dosage is 1 to 2 tablets four times daily, with a maximum dosage of 3 tablets four times daily. For optimal benefit, particularly in patients likely to require long-term treatment, the starting dose should be based on the patient's tolerance to acetylsalicylic acid. The initial dose should be continued until a satisfactory clinical response is obtained, at which time the

dose should be reduced to a minimal effective level. To minimize the possibility of gastric irritation, each dose should be taken immediately after meals and at bed-time.

The maximum dosage of 6 Cordex Tablets four times daily supplies 6 mg. of delta-1-hydrocortisone and the development of undesirable hormonal effects is therefore unlikely. Nevertheless, patients receiving Cordex Tablets should be observed carefully, the same precautions being observed as with other forms of adrenocorticoid therapy. Cordex Tablets are packed in 24's and 100's.

## REVIEWS OF BOOKS : BOEKRESENSIES

### THE ABRAHAM FLEXNER LECTURES SERIES NUMBER TWELVE

*The Abraham Flexner Lectures Series Number Twelve. Psychoanalysis Practical and Research Aspects.* By Willi Hoffer, M.D. (Vienna), Ph.D. (Vienna), L.R.C.P., L.R.C.S. (Edinburgh), L.R.F.P.S. (Glasgow). Pp. 102. 27s. 6d. London: Baillière, Tindall and Cox Ltd. 1955.

*Contents:* 1. Introduction. 2. Principles of Training in Psycho-analysis. 3. Internal Conflict and Anxiety. 4. Some Aspects of the Psychoanalytic Investigation of Childhood. 5. Ego Reactions in Cerebral Disease; A Case Report. 6. Some Problems of Ego-Psychology. References and Comments. Index.

In this volume which consists of five integrated lectures on psychoanalysis, Dr. Hoffer, the distinguished London psycho-analyst and editor of *The International Journal of Psycho-analysis*, reveals his great practical experience and wealth of academic training. The writer's main contribution in these lectures is to show that mental hospitals have ceased to be the yardsticks for measuring the confines of psychiatry. Psychiatry has outgrown such narrow conceptions and has subjected itself to a process of further differentiation, having established closer links with academic psychology, with anthropology, sociology, genetics and with the teaching and methods of investigation of Sigmund Freud.

Dr. Hoffer's clear view of the subject and pertinent observations make his book invaluable to anyone working in the field of psychoanalysis.

A.P.B.

### REMOVAL OF TONSILS

*Donne e fanciulli meno felici.* By I. e G. Calderoli. Pp. 231 with illustrations. Bergamo: Scuole Professionali T.O.M. 1955.

*Contents:* Wuestine tonsillare. Note. Prefazione. Capitolo. 1°—Stati Uniti—Inghilterra. 2°—I fanciulli. 3°—Le giovani. 4°—I.e nubili. 5°—Le donne e i loro uomini. 6°—I findanzati. 7°—Riflessi sociali. 8°—Gli sposati. 9°—La tendenza adiposogenitale.

In this monograph of 225 pages the brothers, doctors Innocente and Guido Calderoli continue their crusade against the wholesale removal of tonsils, particularly in the young, without due regard to the consequences in later life. Much of the book, therefore, is repetition of previously stated views. They insist they are not opposed to tonsillectomy but to 'tonsillectomania'. They base their objections on the conviction that the individual without tonsils is less masculine or less feminine, less energetic and less courageous in the battle of life than the individual who had retained them.

The book includes a map of the world which claims to represent the degree to which various nations have been subjected to tonsillectomy. In Great Britain 60% of the population have had their tonsils removed; in the USA 50%, France 15%, Scandanavia 10%, Germany 7%, Spain and Italy 3%. The source of these statistics is not mentioned.

The theory is that the tonsil produces an internal hormone, which is a necessary factor in the human economy, and deprivation of this hormone brings many evils in its wake. The authors acknowledge the necessity for tonsillectomy in certain cases, but they plead for careful deliberation before advising the operation, particularly in children under ten years of age.

In every field of human endeavour, according to the authors, the person without tonsils functions at a disadvantage. Thus the British working man no longer works with the same productive zeal, the american soldier does not fight with same courage and determination today as his father did in the 1914-1918 war, and the tame, domesticated American husband helping with the household chores is but a poor copy of the audacious go-getter of previous generations.

A justification of the title of the book 'Unhappy Women and Children' is attempted in the first part, which consists mostly of a long recitation of the woes and ills which patients have noted in themselves after tonsillectomy. Women lose their charm and fascination, and suffer from headaches and melancholia. Children become apathetic and young girls lose their feminine grace of movement. In courtship and in marriage these traits bring frustration and unhappiness.

In the second part of the book certain physical changes noted by the authors are surveyed. A large number of tonsillectonized children, for instance, develop a mild adiposa-genitalis. Oedema of the lower limbs is frequently met in others.

The originality of the idea and the forceful manner in which the arguments are brought forward may command the attention of the reader without achieving his conversion. It will require more proof than is contained in this book before the profession will be led to believe, that the removal of the tonsils is a semi-castration leading to alarming physical and social consequences on a national scale.

C.K.O'M.

### INFANTILE GASTRO-ENTERITIS

*The Aetiology of Epidemic Infantile Gastro-Enteritis.* By J. Smith, M.D., D.Sc., F.R.C.P. (Lond.), D.P.H. Pp. 104 with illustrations Edinburgh: The Royal College of Physicians. 1955.

*Contents:* I. Historical Epidemiology. II. Review of the Literature on the Bacteriology of the Disease. III. The Classification of E. coli Strains Associated with Infantile Gastro-Enteritis. IV. The Epidemic of Infantile Gastro-Enteritis in Aberdeen during 1947. V. The Association of Specific Types of E. coli with Cases of Infantile Gastro-Enteritis. VI. The Presence of Agglutinins in Human Sera for the Antigens of Strains of E. coli commonly Associated with Infantile Gastro-Enteritis. VII. The Sensitivity ot Antibiotics to Strains of E. coli Associated with Infantile Gastro-Enteritis. VIII. Discsusion on the Significance of Specific Types of E. coli in the Aetiology, Epidemiology and Control of Epidemic Infantile Gastro-Enteritis. References.

For those who are in any way associated with infantile gastro-enteritis this small book is as enthralling as a detective novel. A large part of the contents is primarily of interest to the bacteriologist but there is a great deal of information bearing on the clinical application of the bacteriology. The conclusion is that the requirements of Koch's postulates have been fulfilled and that 11 of the 'O' groups of E. coli have been found guilty of causing gastro-enteritis.

The monograph should be in the library of every medical school, children's hospital, and hospital governing-body and should be made compulsory reading for administrators and designers of hospitals. Other people whose work includes the care of infants will appreciate the help it gives to them in suggestions as to the handling of this common but dangerous disease and consider it a good investment.

F.J.F.

### NEURAL CONTROL OF THE PITUITARY GLAND

*Neural Control of the Pituitary Gland.* By G. W. Harris, F.R.S., Sc.D., M.D. Pp. 298, with illustrations. 30s. London: Edward Arnold (Publishers) Ltd.

*Contents:* Chapter 1. Introduction. 2. Nerve Supply and Blood Supply of the Adenohypophysis (anterior pituitary gland). 3. Transplantation of Endocrine Glands. 4. Regulation of Gonadotrophic Secretion from the Anterior Pituitary Gland. 5. Regulation of Adrenocorticotrophic Secretion from the Anterior Pituitary Gland. 6. Regulation of the Secretion of the Thyrotrophic, Lactogenic and Growth Hormones. 7. Neurovascular Control of the Adenohypophysis. 8. Anatomy of the Hypothalamus. The nervous and blood supply of the Neurohypophysis. 9. Regulation of the Secretion of Antidiuretic Hormones. 10. Regulation of the Secretion of the Oxytocic Hormone. 11. The Nature and Site of Formation of Posterior Pituitary Hormone(s). 12. Maturation of the Hypothalamo-hypophysial Mechanism. 13. Hormones and Behaviour. Author Index. Subject Index.

This is one of the monographs of the Physiological Society and as such is useful to advanced students of Physiology and practitioners

who are specially interested in that branch of medical science. It begins with a general statement of the effects of the nervous system on endocrine activity and of endocrine secretion on the nervous system.

After dealing with the various other functions associated with the pituitary gland it deals finally with the effect of hormones on behaviour.

The different aspects of the study have been arranged in an interesting and helpful manner and the illustrations and diagrams are appropriate and sufficient.

Although the book is advanced for the average practitioner there are many who will find it interesting.

A.H.T.

### TRANSPLANTATION OF TISSUES

*Transplantation of Tissues. Cartilage, Bone, Fascia, Tendon, and Muscle.* Volume I. By Lyndon A. Peer, M.D. Pp. 421+xii with 163 illustrations. £5 2s. 6d. London: Baillière, Tindall and Cox Ltd. 1955.

*Contents:* 1. General Considerations. 2. Cartilage. 3. Bone. 4. Fascia and Tendon. 5. Muscle. 6. Theories of Cell Regeneration.

Tissue transplantation has within recent years become a well established surgical procedure and this book supplies a comprehensive study of the subject.

The author first reviews the earlier experimental work on animals which, on the whole, is somewhat confusing and contradictory. From there he proceeds to grafting in humans, in which the results are far more consistent.

The fate of animal grafts, whether living or dead, such as boiled beef bone, boiled or 'pickled' cartilage or kangaroo tendon, are discussed. Sooner or later these tissues are absorbed, although the occasional invasion of the bone grafts by the host's osteoblasts and its gradual replacement appears possible.

Homografts unfortunately suffer the same fate as hetorogenous grafts, owing probably to an immune reaction. This view is strengthened by the fact that a further graft from the same source is destroyed more rapidly than the first.

If permanence is required the patient's own tissues must be used. In this volume the author deals with cartilage, bone, fascia, tendon and muscle.

Cartilage used to be the tissue of choice for many cosmetic corrections, but its subsequent tendency to bend has resulted in its replacement by bone in many cases. It stands, however, predominant in ear reconstruction. A new and interesting use of diced cadaver cartilage in spina-bifida repair is described. The use of cartilage in phalloplasty has, however, been omitted.

The uses of bone and tendon transplants in general surgery and orthopaedics are too well known to require comment. It is interesting, however, to see the large part played by free grafts in tendon injuries of the fingers.

This book should be of considerable interest to most surgeons.

N.P.

### POPULAR MEDICINE

*Mankind Against the Killers:* By James Hemming. Pp. xii+231. 15/- net. London: Longmans, Green and Co. 1956.

*Contents:* Foreword. Acknowledgements. 1. Man the Conqueror. 2. Unseen Enemies. 3. The History of the Killers. 4. Detective Story. 5. Germs on the Move. 6. Man can Hit Back. 7. Men should be Strong. 8. Easy Victims. 9. War on the Killers: I. War on the Killers: II. 11. Strange Problems. 12. Nurses, Mothers and Children. 13. Racing Death. 14. The Front Line. 15. The Day after Tomorrow. 16. Man's last Enemy. Index.

Medical books written for the public have to be opened with care; too many are written with a watchful eye on royalties and a prayerful knee to Hollywood. And the dramatic short medical article highlighting something sensational—like chlorophyll—which is here today and gone tomorrow' is the most deplorable of all such writings. Hardly less deplorable is the dull textbookish work which has to be wearily waded through. Therefore to open, to read, to be fascinated, by such a book as 'Mankind Against The Killers' is to discover a brilliant literary gem among both the flashy and the dull ore on the bookshelves of popular medical science.

The author is an experienced exponent and a skilled writer, whose simplicity of style appeals, like R. L. Stevenson, to youth of all ages. One must indeed have ceased to love life not to find James Hemming's book exciting and stimulating. His premise is clear and direct: man's task to conquer Nature, and to conquer himself—the highest physico-mental aspect of Nature. He chooses for his subject Nature's own war against man: disease. Men who have made medical history—indeed world history—live again in startling simplicity in his pages: Leeuwenhoek, Spallanzani, Koch, Pasteur, Pinel, Ross, Yersim, Erlich, Kitasato, Reed, Fleming.

In order to develop his theme, he has to give some elementary instruction in regard to the bacteriological causation of disease. This perhaps is the least satisfying aspect of his book, but by no means dull and uninteresting.

One reads this book with increasing interest as its exciting story develops to the climax of the achievements of WHO—WHO directing its curative and preventive medicine among millions of people, and with its vision of hope and faith, which the author, with rare enthusiasm, instils into the reader's heart and mind.

F.B.P.

### MIDWIFERY FOR MIDWIVES

*Midwifery.* Principles and Practice for Pupil Midwives, Teacher Midwives and Obstetric Dressers. Fourth Edition. By R. Christie Brown, Barton Gilbert, Donald B. Fraser and Richard H. Dobbs. viii+892. 25s. net. London: Edward Arnold (Publishers) Ltd. 1956.

*Contents:* I. Scientific Principles. II. General Anatomy and Physiology. III. Special Anatomy. IV. Special Physiology and Normal Pregnancy. V. Normal Labour. VI. Normal Puerperium. VII. Management of Normal Pregnancy, Labour and Puerperium. VIII. Abnormal Pregnancy. IX. Disorders Associated with Pregnancy. X. Abnormal Labour. XI. Emergencies and Accidents of Labour. XII. The Abnormal Puerperium. XIII. The Child. XIV. Obstetric Operations. Index.

During the 15 years that have elapsed since the first edition of this text-book of midwifery it has attained a prominent and well merited place in the teaching of midwifery to student nurses. The subject matter is set out in an interesting manner and has been brought well up to date.

In common with other medical text-books it continues to grow in size and, as it has now reached well over 800 pages, it is suggested that the section on general Anatomy and Physiology be deleted from subsequent editions, for this matter can be found in standard nursing text-books and its deletion would reduce this book by 70 pages.

On page 445, in discussing the treatment of placenta praevia, the authors state that 'circumstances may arise, however, where haemorrhage is severe, and the midwife can neither send the patient into hospital, nor can she obtain medical aid. In these circumstances, dangerous as it may be, the midwife must prepare to treat the patient herself.... (and) rupture the membranes where possible'. As it is in this type of case that the more serious degrees of placenta praevia will probably be present, one can well imagine the results that may follow this operative procedure carried out by someone with no previous experience. In their preface the authors stress that this would not apply to midwives practising in Great Britain; and one feels that this paragraph should be omitted from further editions of the book.

Apart from this criticism one can recommend this text-book whole-heartedly; and it should have little difficulty in maintaning the position it has won for itself in the field of midwifery.

T. St. V. B.

### AN INDIAN REFRESHER COURSE

*Refresher Course for Practioners.* Specially contributed Articles from the Journal of the Indian Medical Association. Volume I. Pp. 364 with illustrations. 8s. Calcutta, Tarani Kanta Basu. 1955.

*Contents:* Diagnosis and Treatment of Malaria. Keratomalacia. Prevention of Diphtheria. Management of Diptheria. Background and Diagnosis of Bronchial and Cardiac Asthma. Management of Bronchial and Cardiac Asthma. Essential Hypertension. Pleurisy. The differential Diagnosis of Anaemias. Treatment of the Anaemias. Intestinal Obstruction. Acute Appendicitis. Amoebiasis and its

Management. Allergy. Antenatal Care. Care of the Puerperium. Coronary Thrombosis. Coronary Thrombosis. Peripheral Vascular Disease. Portal Cirrhosis. Burns and their Management. Role of Plastic Surgery in the Management of Injuries and Burns. Diagnosis of Pulmonary Tuberculosis. Chemotherapy in Pulmonary Tuberculosis. Peptic Ulcer. Treatment of Cholera. Cardiovascular Syphilis. Cardiovascular Emergencies. Eclampsia and its Management. Pelvic Pain and Backache in Women. Small Pox and its Management. Surgical Treatment of Senile Enlargement of the Prostate.

This little book is the first volume of a series of papers which have appeared in the Journal of the Indian Medical Association. They were designed to help the general practitioner to refresh his memory and, at the same time, to bring him up to date. The articles were contributed by recognized specialists practising in India and the choice of subject is wide, as will be seen from the chapter titles given above.

The Indian Medical Association is to be congratulated on its enterprise in providing this service to its many members, especially to those practising in the outlying areas of their vast country.

There is no doubt that they will appreciate this contribution of their Association and will find it of great benefit to them.

A.H.T.

### FORENSIC MEDICINE

*Forensic Medicine. A Textbook for Students and Practitioners.* Tenth edition. By Sir Sydney Smith, *C.B.E., LL.D.*, M.D.(Edin.), F.R.C.P. (Edin.), D.P.H., F.R.S.E., Hon. M.D. Louvain, and Frederick Smith Fiddes, *O.B.E.*, M.D. Pp. 644+xi with 173 illustrations. 40s. 0d. London: J. & A Churchill, Ltd. 1955.

*Contents:* 1. Legal Procedure in England, Scotland and Ireland. 2. The Signs of Death and Subsequent Phenomena. 3. Sudden Death from Natural Causes. 4. Post-Mortem Examination of the Body. 5. Identification. 6. Wounds. 7. Injuries in Various Parts of the Body. 8. Self-Inflicted Wounds and Fabrications. 9. Wounds from Firearms. 10. Differential Diagnosis in States of Insensibility. 11. Examination of Blood Stains. 12. Injuries from Burns and Scalds. 13. Violent Death from Asphyxia. 14. Asphyxia from Breathing Irrespirable Gases. 15. Impotence and Sterility. 16. Rape and Indecent Offences. 17. Pregnancy and Delivery. 18. Abortion. 19. Infanticide or Child Murder. 20. Ethics and Law in the Conduct of Medical Practice. 21. Insanity. 22. Toxicology. 23. Corrosive Poisons. 24. Metallic Poisons. 25. Common Hypnotics, Antipyretics and Anaesthetics. 26. Vegetable Poisons. 27. Miscellaneous Poisons. 28. Food Poisoning. Appendices. Index.

This book, which has been a standard authority for the last 30 years, is too well known to need comment. It is now in its 10th edition and will continue to meet the needs of students and practitioners for many years to come.

A book of such proved worth deserves only praise.

A.H.T.

### HYPNOSIS

*Hypnosis. Its Meaning and Practice.* By Eric Cuddon, M.A., B.C.L., Barrister-at-Law. Pp. 175+viii. 13s. 0d. London: G. Bell & Sons. Ltd. 1955.

*Contents:* 1. Introduction. The Inner Mind. 2. Tests of Suggestibility. 3. The Experimental Phenomena of Hypnosis. 4. Post Hypnotic Suggestion. 5. The Limitations of Suggestion. 6. Hypnosis in Medicine and Surgery. 7. The History of Hypnotism. 8. Theories of Hypnosis. Appendix. Books for Reference. Glossary.

The year 1955 may be regarded as an era of scientific progress in hypnosis and its application to psychosomatic medicine. It has been finally approved by the British Medical Association and is now being widely used throughout the world by the medical profession.

There has been a multitude of books published on hypnosis, and this particular book under review has been written by a barrister. The book explains in nontechnical language the real nature of hypnotism and what can be accomplished by its aid.

The reader is first introduced to the subconscious mind; by easy stages he is shewn how to determine what persons he may be able to hypnotize, the various methods by which it is possible to induce a state of hypnosis, how to staisfy himself that he has succeeded, and how to end the condition when desired.

Chapters are devoted to the explanation of the various phenomena which can be evoked during the hypnotic state, the limitations of suggestion, and the use of hypnotism in medicine and surgery.

This book is primarily for the layman; it is not recommended for a doctor beginning the study of hypnosis.

S.K.

### A THEORY OF THE EFFECTS OF TONSILLECTOMY

*Il Sottosesso nei Popoli Senëa Tonsille.* By I. e G. Calderoli. Pp. 155. Bergamo: Tipografia Orfanotrofia Maschile. 1954.

*Contents:* Indice dei Capitoli. 1. Un'aberrazione della medicina nel secolo ventesimo. 2. La trappola dei bacill. 3. Il problema tonsillare e problema sociale e di razza. 4. Il saggio del Dr. Gabbi. 5. Popoli ed eserciti senza tonsille. 6. Cosi combattono. 7. Cosi lavorano. 8. Cosi nello sport. 9. Il male inglese di Bicknell. 10. Cosi bevono. 11. Cosi con la donna. 12. E la donna? 13. Conclusione e recensioni. 14. Autoriassunto. 15. Aforismi tonsillari.

Why has the productive capacity of British workers fallen off so markedly in recent years? What caused the alleged lack of combative spirit in the American Forces in World War II and in Korea? To what factor was the 'annoying' quality found in American men by the Italian actress Sylvana Pampanini due?

To these and to many other questions of racial and social importance the doctors I. and E. Calderoli, of Bergamo, Italy, are satisfied that they have a convincing answer—the removal of tonsils in childhood.

In this small book the authors devote themselves to the task of exposing the diverse and evil effects which have accrued to humanity in the last 40 years as the result of what they call the 'fashion of tonsillectomy'. For them the tonsil is far more than a mere outpost in the defence system of the body, a sieve or trap for micro-organisms. They regard it as the producer of an internal hormone which profoundly influences the psyche, particularly in relation to the sex-behaviour pattern of the individual and its attendant qualities.

The man or woman without tonsils is a semi-castrate according to the doctors Calderoli, and the present book is one more item in a long sustained campaign drawing the attention of world authorities to a practice which, they claim, is steadily undermining the morale of whole race-groups.

The arguments and conclusions of the authors are based on their personal observations of thousands of case histories which revealed great alteration in character after the removal of the tonsils in childhood. They quote extensively from the worlds' press and the utterances of public figures. Four authors are a frequent source of fuel for the fire of their burning enthusiasm.

In a chapter entitled 'How they fight' ('they' being soldiers who had had their tonsils removed) the disquieting revelations of General S. L. A. Marshall in his book *Men Against Fire* are repeated. It appears that in World War II only 12-25% of American soldiers fired rifles in actual engagements. Their fingers found the triggers of their rifles, but some inexplicable lack of the fighting instinct caused them at the last moment to relax the pressure. It is stated that arms inspections after battle established this fact. In Korea even under severe enemy pressure the fire-power of a unit never exceeded 50% of that available.

Through the pages of Kinsey's books on sex behaviour, Dr. Bicknell's *The English Complaint*, and excerpts from Zweig's *The English Working Men* we follow the slow, hesitant trail of the tonsilless through their unromantic, timid love affairs, their childless, frustrated marriages, their defeats on the sports grounds, their ineffective labours in the factories. And this long list of routs and dicomfitures, scattered through 14 chapters, is well and truly laid at the door of tonsillectomy.

No proofs are brought forward that the tonsils do in fact secrete a hormone that might change the timorous recruit into a fierce warrior or transform the hesitant, semi-caponized youth into a rampant, vigorous lover. This is the weak point in a diverting book written with the fervour and conviction of an apostle witnessing the approach of an avoidable doom.

Although the doctors Calderoli are obviously sure of the soundness of their thesis there is one reader at least to whom they seem to commit the facile fault in logic of Enthyneme—jumping to conclusions.

A visiting commission from another planet, perusing the map which illustrates the author's views, might conceivably associate the 50% lack of tonsils in the Anglo-Saxon peoples with their undoubted political and technological advancement, and attribute to the preponderance of intact fauces (97%) the gracious tempo of life which is the charm of certain Latin countries. I leave it to others, better qualified than I to judge.

C.K.O'.M.

# CORRESPONDENCE : BRIEWERUBRIEK

## PERINATAL MORTALITY

*To the Editor:* In Dr. van Dongen's paper under this heading appearing in the *Journal* of 28 April, we were somewhat surprised to see how little maternal diabetes or prediabetes featured as a cause of death. It is possible that the 'cause unknown' column holds the explanation for the low incidence—once in 117 macerated stillbirths, not at all in 97 fresh stillbirths and 3 times in 206 neonatal deaths (these being associated with prematurity).

We believe that latent diabetes (prediabetes) in the mother is an important cause of unexplained stillbirth and neonatal death.[2] Space does not permit a discussion of our methods of investigation and of diagnosis but it is hoped that these will be published in the future.

This would perhaps, be a suitable occasion to notify practitioners, through the courtesy of your columns, of our interest in this problem. Whenever possible, in cases of unexplained stillbirth, one of us (N.W.) would be glad to receive small portions of the baby's pancreas and liver fixed in 10% formalin or alcohol, together with details of the mother's obstetrical history and the baby's weight and length.

We should be most grateful for the cooperation of practitioners and interns in this matter.

W. P. U. Jackson
*Department of Medicine*

N. Woolf
*Department of Pathology*

University of Cape Town
Groote Schuur Hospital
Telephone 5-1353

1. Van Dongen, L. G. R. (1956): S. Afr. Med. J., **30**, 399.
2. Jackson, W. P. U. (1953): *Ibid.*, **27**, 795.

## BEWARE THE TRANQUILLIZING DRUGS

*To the Editor:* The introduction of chlorpromazine into the field of psychiatric practice has recently been followed by the advent of a whole series of so-called tranquillizing drugs. I have no doubt that further additions will become available during the next year or two, each drug with a more appealing name and more fantastic claims to its credit.

Chlorpromazine, particularly, is to be welcomed as a most useful adjunct in the handling of the major acute mental disorders. On the other hand, it is becoming increasingly evident that this group of drugs has very limited value in the treatment of minor emotional disturbances, the neuroses and psychosomatic conditions.

It is essential that the limitations of these drugs should be recognized but, even more important, the fact is to be stressed that they are resulting in a most undesirable approach to the management of emotional disorders.

The inescapable axiom that psychological disturbances are best and most correctly treated by psychological methods must never be forgotten. In treating an emotionally disturbed patient, the primary objective should always be the extirpation of the sources of the patient's anxiety and the resolution of the guilty emotional conflicts. An earnest attempt should always be made to investigate and expose the emotional difficulties and then institute some form of psychotherapy. The exact form which this therapy will take will naturally depend on the necessities of the individual case.

The use of the tranquillizing drugs is resulting in an alarming tendency to institute immediate medicinal therapy for symptoms of psychogenic origin without giving any attention to the source of the presenting symptoms. The patient-doctor relationship is being impaired, and emotionally disturbed patients are being encouraged to turn to unprofitable defence mechanisms in dealing with their psychological problems.

The immediate prescription of a tranquillizing drug for an emotionally disturbed patient, before an attempt has been made to tackle the disturbed psyche on a psychological basis, represents, in my opinion, a deplorable approach to clinical medicine. These tranquillizing drugs are contributing vigorously towards the elimination of the psychosomatic approach in modern medicine. If they were producing dramatic results there might be some excuse for their liberal use, but this is far from the case.

Before we are overwhelmed by the host of tranquillizing drugs which will inevitably be presented for clinical trial, let us pause to consider the implications of these drugs. Their indiscriminate use is to be deprecated. They can never replace a psychotherapeutic approach and, at best, may only prove useful where a more rational line of therapy is either impracticable or has failed.

Harold Cooper
*Psychiatrist*

501 Security Buildings
Exchange Place
Cape Town

## 'STOP ORDER' FOR DISPENSING DOCTORS

*To the Editor:* Press reports state that a Bill will shortly be tabled by the Minister of Health to stop doctors from dispensing if there is a chemist and druggist carrying on business within 5 miles of any point at which a doctor practices, except in an emergency.

The medical profession, the traditional runner-up in any kind of dispute owing to lack of interest in public affairs and lack of business acumen, must, for once, unite to fight the Bill which, should it become law, will seriously affect the social and economical structure of this country. As always, it is the overworked and underpaid GP who has to bear the brunt, and it is especially doctors with non-European practices who are likely to lose their livelihood. The Bantu, accustomed in most cases to regard the supply of stock remedies as part of his treatment, will be puzzled, will lose trust in the doctor, and will not understand why he has to spend extra money at the chemist's. Without doubt he will revert to the not-so-far-away days of superstition and witchcraft, thus endangering the whole population.

If doctors who dispense their own medicines should they feel so inclined are deprived of a convenient, inexpensive, satisfactory and time-honoured way of treatment, then chemists should adhere to their sole and original role, that of purveyors of remedies prescribed by the medical profession. But I still have to find the chemist who will send a customer complaining of a pain in the head, chest, abdomen or big toe out of his shop with advice to consult a doctor first. And I doubt very much whether he will abandon the display and sale of fountain pens, fancy goods and mechanical toys. Furthermore, what does the Minister think of grocery stores and tea rooms where purgatives, ointments and headache tablets are obtainable?

Doctors awake! This is an emergency!

*Stop Order*

Johannesburg
18 May 1956

## THE PROBLEM OF INTERSEX

*To the Editor:* Concerning the article[1] of this name by Dr. R. Hoffenberg and Dr. W. P. U. Jackson in the *Journal* of 5 May 1956, I should like to make the following disclaimer:

I operated on case 1 (M.E.) as described.

Case 2 (L.R.) however, was not operated on by me. The patient appeared to be of definitely male type with an extreme degree of hypospadias, and Dr. David Davies operated on him in two stages: (1) Correction of chordee, followed later by (2) the formation of a urethra.

N. Petersen
*Surgeon-in-charge, Plastic Unit*
*Groote Schuur Hospital*

1. Hoffenberg, R. and Jackson, W. P. U. (1956): S. Afr. Med. J., **30**, 417.